

Forty-second Annual Catalogue

of the

Officers, Students and Graduates

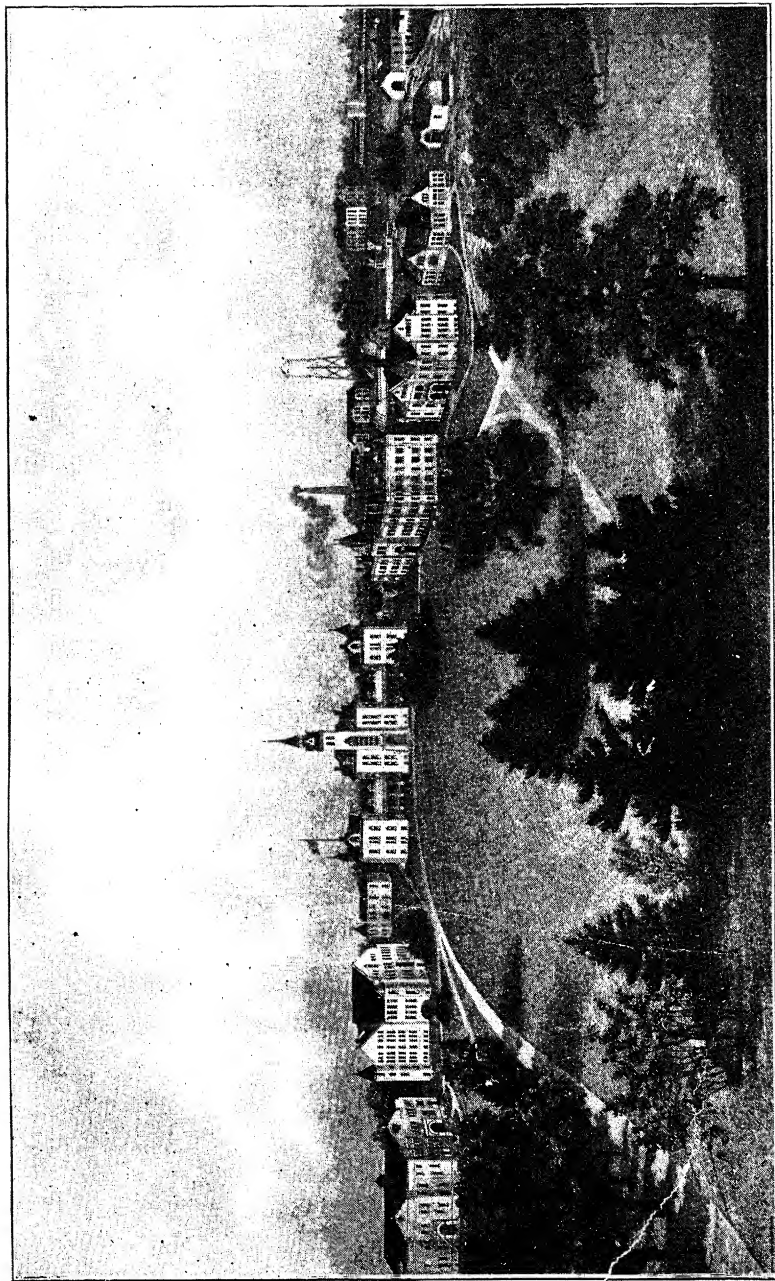
of the

**Kansas State
Agricultural College,
Manhattan.**

1904-'05.



Printed by
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May, 1905.



GENERAL VIEW.

Terms and Vacations.

Fall Term, 1905, Thirteen Weeks.

WEDNESDAY, SEPTEMBER 20.—Examination for admission, at nine A. M.
THURSDAY, SEPTEMBER 21.—College year begins.
TUESDAY, OCTOBER 3.—Short course in domestic science begin.
SATURDAY, NOVEMBER 4.—Mid-term examination.
THURSDAY, NOVEMBER 30.—Thanksgiving Day vacation.
THURSDAY AND FRIDAY, DECEMBER 21, 22.—Examination at close of term.

Winter Term, 1906, Twelve Weeks.

TUESDAY, JANUARY 2.—Examination for admission, at nine A. M.
WEDNESDAY, JANUARY 3.—Winter term begins.
WEDNESDAY, JANUARY 3.—Short courses in agriculture and dairying begin.
SATURDAY, JANUARY 27.—Annual inter-society oratorical contest.
SATURDAY, FEBRUARY 10.—Mid-term examination.
THURSDAY AND FRIDAY, MARCH 22, 23.—Examination at close of term.

Spring Term, 1906, Eleven Weeks.

MONDAY, MARCH 26.—Examination for admission, at nine A. M.
TUESDAY, MARCH 27.—Spring term begins.
SATURDAY, MAY 5.—Mid-term examination.
TUESDAY AND WEDNESDAY, JUNE 12, 13.—Examination at close of year.
JUNE 10 TO 14.—Exercises of commencement week.
THURSDAY, JUNE 14, at ten A. M.—Commencement.
JUNE 15 TO SEPTEMBER 19.—Summer vacation.

Fall Term, 1906.

WEDNESDAY, SEPTEMBER 19.—Examination for admission, at nine A. M.
THURSDAY, SEPTEMBER 20.—College year begins.

Students must be present the very first day of each term or render a reasonable excuse. Failure to take out an assignment will not be accepted as an excuse.

Board of Regents.

HON. J. W. BERRY (1907),¹ *President*,
Jewell, Jewell county.

HON. J. O. TULLOSS (1907), *Vice-president*,
Sedan, Chautauqua county.

HON. E. T. FAIRCHILD (1907),
Ellsworth, Ellsworth county.

HON. J. S. McDOWELL (1909),
Smith Center, Smith county.

HON. A. M. STORY (1909),
Manhattan, Riley county.

HON. GEO. P. GRIFFITH (1909),
Hays, Ellis county.

PRES. E. R. NICHOLS (*ex officio*), *Secretary*,
Manhattan, Riley county.

MISS LORENA E. CLEMONS, *Assistant Secretary*,
Manhattan, Riley county.

1. Term expires.

Board of Instruction.

The Faculty.

ERNEST R. NICHOLS, D. B. (Iowa State Normal School), A. M. (State University of Iowa),
President.

JOHN D. WALTERS, M. S. (Kansas State Agricultural College),
Professor of Architecture and Drawing.

JULIUS T. WILLARD, M. S. (Kansas State Agricultural College),
Professor of Chemistry.

EDWIN A. POPENOE, A. M. (Washburn),
Professor of Entomology and Zoology, Curator of the Museum.

BENJAMIN L. REMICK, Ph. M. (Cornell College),
Professor of Mathematics.

BENJAMIN F. EYER, B. S. (Armour Institute),
Professor of Physics and Electrical Engineering.

HERBERT F. ROBERTS, A. B. (University of Kansas), M. S. (Kansas State Agricultural College),
Professor of Botany.

WILLIAM ARCH McKEEVER, A. M. (University of Kansas), Ph. M. (University of Chicago),
Professor of Philosophy.

EDMUND B. McCORMICK, S. B. (Massachusetts Institute of Technology),
Professor of Mechanical Engineering, Superintendent of Shops.

ALBERT DICKENS, M. S. (Kansas State Agricultural College),
Professor of Horticulture, Superintendent of Orchards and Gardens.

CLARK M. BRINK, A. M. (U. of R.), Ph. D. (University of City of New York),
Professor of English.

ALBERT M. TEN EYCK, B. Agr. (Wisconsin),
Professor of Agriculture, Superintendent of Farm.

Mrs. HENRIETTA W. CALVIN, B. S. (Kansas State Agricultural College),
Professor of Domestic Science.

RALPH R. PRICE, A. B. (Baker), A. M. (University of Kansas),
Professor of History and Civics.

KANSAS STATE AGRICULTURAL COLLEGE.

JULIUS E. KAMMEYER, A. M. (Central Wesleyan College),
Professor of Economics.

OSCAR ERF, B. S. Agr. (Ohio State University),
Professor of Dairy and Animal Husbandry.

PEARL M. SHAFFER, Captain Twenty-fifth Infantry, U. S. A.,
Professor of Military Science.

JOHN V. CORTELYOU, A. M. (University of Nebraska), Ph. D. (Heidelberg),
Professor of German.

OLOF VALLEY, B. M. (Chicago Conservatory of Music),
Professor of Music.

FRANCIS S. SCHOENLEBER,¹ M. S. A. (Iowa State Agricultural College),
D. V. S. (Chicago Veterinary College), M. D. (National Medical
University and Harvey Medical College),
Professor of Veterinary Science.

JOSHUA D. RICKMAN (International Typographical Union),
Superintendent of Printing.

BENJAMIN S. MCFARLAND, A. M. (Miami),
Principal of Preparatory Department.

Miss MARGARET J. MINIS, B. S. (Kansas State Agricultural College),
Librarian.

Miss MARGUERITE E. BARBOUR, (Sargent Normal School of Physical
Training),
Director of Physical Training.

Miss FRANCES M. BARNES, (Clarkson School of Technology),
Superintendent of Domestic Art.

Miss LORENA E. CLEMONS, B. S. (Kansas State Agricultural College),
Secretary.

Assistants.

JACOB LUND, M. S. (Kansas State Agricultural College),
Superintendent Heat and Power Department.

Miss ALICE RUPP (Indiana State Normal), A. M. (Kansas State Agricultural
College),
Assistant Professor of English.

CLARENCE L. BARNES, D. V. M. (Cornell University),
Assistant Professor of Veterinary Science.

1. Since April 1, 1905.

JOHN O. HAMILTON, B. S. (University of Chicago),
Assistant Professor of Physics.

OSCAR H. HALSTEAD, B. S. (Kansas State Agricultural College),
Assistant Professor of Mathematics.

CHARLES E. PAUL,² S. B. (Massachusetts Institute of Technology),
Assistant Professor of Mechanical Engineering.

ROLAND J. KINZER, B. S. Agr. (Iowa State College),
Assistant Professor of Animal Husbandry.

ANDREY A. POTTER,³ S. B. (Massachusetts Institute of Technology),
Assistant Professor of Mechanical Engineering.

MISS ADA RICE, B. S. (Kansas State Agricultural College),
Instructor in English.

WALTER E. MATHEWSON, B. S. (Kansas State Agricultural College),
Instructor in Chemistry.

FRANK M. McCLENAHAN, A. M. (Yale),
Instructor in Chemistry.

WILLIAM L. HOUSE,
Foreman of Carpenter Shop.

ROBERT H. BROWN, B. M. (Kansas Conservatory of Music), B. S. (Kansas
State Agricultural College),
Assistant in Music.

WILLIAM ANDERSON, B. S. (Kansas State Agricultural College),
Assistant in Physics.

MISS GERTRUDE BARNES,
Assistant Librarian.

LOUIS WABNITZ,
Foreman of Machine-shops.

MISS INA E. HOLROYD, B. S. (Kansas State Agricultural College),
(Kansas State Normal),
Assistant in Preparatory Department.

MISS HETTY G. EVANS (Massachusetts Normal Art School),
Assistant in Drawing.

VERNON M. SHOESMITH, B. S. (Michigan Agricultural College),
Assistant in Agriculture.

2. Till January 1, 1905.

3. Since January 1, 1905.

KANSAS STATE AGRICULTURAL COLLEGE.

AMBROSE E. RIDENOUR, B. S. (Kansas State Agricultural College),
Foreman of Foundry.

GEORGE A. DEAN, B. S. (Kansas State Agricultural College),
Assistant in Entomology.

MISS EMMA J. SHORT,
Assistant in Preparatory Department.

MISS INA F. COWLES, B. S. (Kansas State Agricultural College),
Assistant in Domestic Art.

MISS MAUDE M. COE, B. S. (Kansas State Agricultural College),
Assistant in Domestic Art.

ROSCOE H. SHAW, B. S. (New Hampshire College of Agriculture and
Mechanic Arts),
Assistant Chemist, Experiment Station.

THEO. H. SCHEFFER, A. M. (Cornell University),
Assistant in Zoology.

MISS KATE TINKEY,
Assistant Librarian.

EARL N. RODELL, B. S. (Kansas State Agricultural College),
Assistant in Printing.

MISS CAROLINE HOPPS, Ph. B. (University of Chicago),
Assistant in English.

MISS HELEN THOMPSON, B. S. (Kansas State Agricultural College),
Assistant in Preparatory Department.

MISS ELLA WEEKS, A. B. (University of Kansas),
Assistant in Drawing.

MISS FLORA ROSE (Framingham, Mass., Normal), B. S. (Kansas State
Agricultural College),
Assistant in Domestic Science.

MISS CLARA PANCAKE, B. S. (Kansas State Agricultural College),
Assistant in Domestic Science.

R. F. BOOTH, B. S. (Northwestern),
Assistant in Mathematics.

GEO. C. WHEELER,⁴ B. S. (Kansas State Agricultural College),
Assistant in Feeding Experiments.

MISS FLORENCE H. VAIL,⁵ B. S. (Kansas State Agricultural College),
Assistant in Chemistry.

4. Till April 6, 1905.

5. Till January 1, 1905.

ROBERT E. EASTMAN, M. S. (Cornell University),
Assistant in Horticulture.

MISS DAISY ZEININGER, B. A. (Fairmount),
Assistant in Mathematics.

ROY A. SEATON, B. S. (Kansas State Agricultural College),
Assistant in Mathematics.

HERNON C. KYLE, B. S. (Kansas State Agricultural College),
Assistant in Agriculture.

GEORGE F. FREEMAN, B. S. (Alabama Polytechnic Institute),
Assistant in Botany.

M. FRANCIS AHEARN, B. S. (Massachusetts Agricultural College),
Foreman of Greenhouses.

FRED C. NICHOLSON,⁶
Foreman of Blacksmithing.

CHAS. S. DEARBORN,⁷ B. S. (Kansas State Agricultural College),
Assistant in Mechanical Engineering.

MISS CECELIA AUGSBURGER,⁸ (Illinois Wesleyan),
Assistant in Music.

CHARLES W. MELICK,⁹ B. S. (University of Nebraska),
Assistant in Dairy Husbandry.

ROBERT J. FOSTER,¹⁰ D. V. M. (Cornell),
Assistant in Veterinary Science.

MISS ALICE LOOMIS, B. S., (Kansas State Agricultural College),
Assistant in Preparatory Department.

ELMER GARDNER,¹¹
Assistant in Heat and Power Department.

C. A. McMILLAN,¹²
Assistant in Heat and Power Department.

6. Since September 15, 1904.
7. Since September 20, 1904.
8. Since October 1, 1904.
9. Since November 1, 1904.

10. Since November 1, 1904.
11. Till September 4, 1904.
12. Since October 1, 1904.

Other Officers.

MISS C. JEANETTE PERRY,¹³ B. S. (Kansas State Agricultural College),
Executive Clerk.

MISS ALICE M. MELTON, B. S. (Kansas State Agricultural College),
Clerk in Director's Office.

MISS SARAH HOUGHAM, B. S. (Kansas State Agricultural College),
Clerk in Botanical Department.

CHARLES HUGHES,¹⁴
Secretary to President.

ARCHIE HUYCKE,¹⁵
Secretary to President.

WILLIAM R. LEWIS,
Janitor.

Student Assistants.

RAYMOND R. BIRCH, Dairying.

HELEN E. BOTTOMLY, Preparatory.

JOHN W. CALVIN, Chemistry.

MARY P. COLLIVER, Preparatory.

BERNARD C. COPELAND, Dairying.

JULES C. CUNNINGHAM, Horticulture.

MARY E. DAVIS, B. S., Preparatory.

LEONARD R. ELDER, Surveying.

CHARLES W. FRYHOFER, Dairying.

NORA HAYS, Preparatory.

GEORGE O. KRAMER, Animal Husbandry.

WILLIAM C. LANE, Surveying.

DANIEL A. LOGAN, Surveying.

ROLAND J. MCKEE, B. S., Horticulture.

JENS NYGARD, Chemistry.

AMER B. NYSTROM, Dairying.

CRETE SPENCER, Preparatory.

ELIZABETH SWEET, B. S., Physiology.

JOHN B. THOMPSON, Horticulture.

MARCIA TURNER, Preparatory.

13. Till April 1, 1905.
14. Till May 1, 1905.

15. Since May 23, 1905.

Experiment Station.

The Council.

President NICHOLS, Chairman.
 Professor WILLARD, Chemist and Director.
 Professor POPENOE, Entomologist.
 Professor ROBERTS, Botanist.
 Professor DICKENS, Horticulturist.
 Professor TEN EYCK, Agriculturist.
 Professor ERF, Dairy and Animal Husbandman.
 Professor SCHOENLEBER,² Veterinarian.

Assistants.

VERNON M. SHOESMITH, Agriculture.
 GEO. A. DEAN, Entomology.
 CLARENCE L. BARNES, Veterinary Science.
 ROSCOE H. SHAW, Chemistry.
 ROLAND J. KINZER, Animal Husbandry.
 ROBERT E. EASTMAN, Horticulture.
 GEORGE F. FREEMAN, Botany.
 Miss ALICE M. MELTON, Clerk in Director's Office.

Fort Hays Branch.

JOHN G. HANEY,¹ Superintendent.
 OTTO H. ELLING, Foreman.
 A. D. COLLIVER,² Assistant in Agriculture.
 J. L. PELHAM,² Assistant in Horticulture.
 GEO. K. HELDER, Bookkeeper.

1. Till January 1, 1905.

2. Since April 1, 1905.

The College Battalion.

The following is a roster of the commissioned and non-commissioned officers -
of the Kansas State Agricultural College corps of cadets for 1904-'05:

CAPT. PEARL M. SHAFFER, Twenty-fifth United States Infantry,
Commandant of Cadets.

STAFF.

H. W. BAKER..... Cadet Captain and Quartermaster.
E. J. EVANS Cadet First Lieutenant and Battalion Adjutant.
M. R. SHULER Cadet Second Lieutenant and Battalion Quartermaster.
J. W. PAINTER..... Cadet Sergeant-major.
J. S. MONTGOMERY..... Cadet Quartermaster Sergeant.
R. A. GASTON..... Cadet Color Sergeant.

INFANTRY, BY COMPANIES.

RANK.	Company A.	Company B.	Company C.
Captain.....	A. N. H. Beeman.....	F. Van Dorp.....	F. E. Balmer.
First Lieutenant.....	C. H. Withington.....	E. A. Cole.....	L. J. Munger.
Second Lieutenant.....	L. E. Hazen.....	E. L. Shattuck.....	F. O. Haasman.
First Sergeant.....	J. M. Ryan.....	E. Patee.....	J. W. Calvin.
Sergeants.....	E. Bull.....	J. A. Lupfer.....	M. M. Justin.
	W. H. Cook.....	S. W. Cunningham.....	F. Farrar.
	O. J. Olson.....	F. C. Harris.....	C. Lambert.
Corporals.....	C. L. McClaskey.....	C. Walker.....	H. Oman.
	F. B. Milliken.....	D. F. Foote.....	J. M. Garrity.
	W. M. Hemphill.....	C. E. Meade.....	A. G. Philipps.
	R. W. Brink.....	I. A. Wilson.....	C. J. Willard.
	E. Emslie.....	W. Anderson.....	.....
	R. A. Grant.....	S. Haan.....	.....

The College Band.

The following is the roll of the College Band for year 1904-'05:

ASST. R. H. BROWN, DIRECTOR.

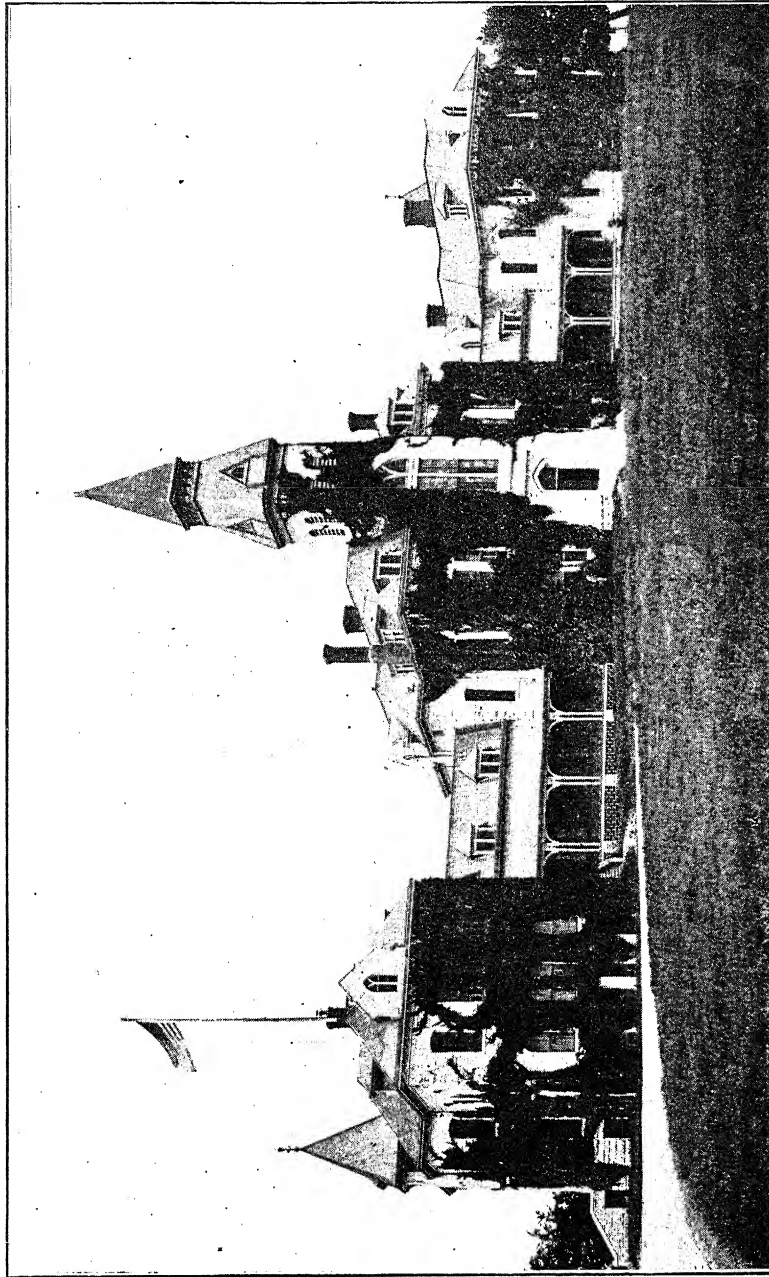
F. W. WILSON, Drum Major.

Sergeants : G. L. WRIGHT, C. B. SWIFT, F. W. GRABENDIKE,
H. B. HUBBARD, H. E. BIXBY.

Corporals : M. ELSAS, R. W. FERRELL, A. G. KITTELL,
H. E. PORTER, A. H. ROSE, D. WALTERS.

NAME.	Instrument.	NAME.	Instrument.
Hoffman, A. H.....	Flute.	Souders, C. A.....	Cornet.
Horstman, M. N.....	Piccolo.	Spohr, G. A.....	"
Lawson, L. W.....	"	Wright, G. A.....	"
Bixby, H. E.....	Saxophone.	Crawford, H. B.....	Horn.
Ferrell, R. W.....	"	Marshall, C.....	"
Carnahan, J. R.....	Clarinet.	Morgan, L. C.....	"
Coxen, J. R.....	"	Neer, D. M.....	"
Cudney, E. W.....	"	Rose, A. H.....	"
Grabendike, F. W.....	"	Cudney, E. W.....	Trombone.
Hanson, O. H.....	"	Missildine, J. G.....	"
Hubbard, H. B.....	"	Rhodes, A. J.....	"
Machin, F. R.....	"	Tinkham, M. R.....	"
McCreary, A.....	"	Walters, D.....	"
Roberts, P. M.....	"	Kittell, A. G.....	Baritone.
Strong, H. D.....	"	Biddison, W. V.....	Bass.
Brinkman, H. W.....	Cornet.	Porter, H. E.....	"
Cowles, A. J.....	"	Seng, A. W.....	"
Douglass, S. C.....	"	Seng, H. H.....	"
Elsas, M.....	"	Spuhler, H. A.....	"
Hoffman, L.....	"	Swift, C. B.....	"
Johnson, E. M.....	"	Evans, R. K.....	Drum.
Lewis, F. C.....	"	Kipp, C. L.....	"
Paro, N.....	"	McCampbell, A. D.....	"
Perfect, K.....	"	Winters, F. W.....	"
Perry, C. A.....	"	Schmidler, H. W.....	Tympani.

Total, 52.



ANDERSON (MAIN) HALL.

History and Resources.

THE income of the College is derived from two sources—national and state. The original land-grant act was signed by President Lincoln July 2, 1862. This act appropriated 30,000 acres of land for each senator and representative in Congress. Under the provisions of this act this state was to receive 90,000 acres. The amount actually received was 82,313.52. This land was to be sold and the proceeds to be a permanent endowment, to be invested in bonds bearing not less than five per cent. interest. The amount of this endowment is \$492,381. "The interest of which shall be inviolably appropriated by each state which may take and claim the benefit of this act to the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

The income derived from this endowment since 1880 is given in the column headed "Income Fund," page 16.

Under this act, the state of Kansas, in 1863, established the State Agricultural College, by endowing Bluemont College, which had been erected two miles from Manhattan, under the auspices of the Methodist Episcopal church, but was presented to the state for the purpose named in the act of Congress.

In 1873 the College was reorganized upon a thoroughly industrial basis, with prominence given to agriculture and sciences related thereto; and in 1875 the furniture and apparatus of the College were moved to the farm of 223 acres, one mile from the city of Manhattan.

In March, 1887, Congress passed the "Hatch bill," which provided for the organization in each state of a station for agricultural experiments, and gave to each an annual appropriation of \$15,000 for this purpose. See "Experiment Station," page 22.

On August 30, 1890, another act was passed by Congress, known as the "Morrill bill." It provided for an annual appropriation, beginning with \$15,000 for year ending June 30, 1890, with an annual increase for ten years of \$1000 over the preceding year, the annual amount thereafter to each state to be \$25,000. This money is "to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural and economic sciences, with especial reference to their applications in the industries of life, and to the facilities for such instructions."

TABULATED FINANCIAL EXHIBIT.

FISCAL YEAR.	STATE APPROPRIATIONS.							Inventory in- crease.....	Expense.....	NATIONAL APPROPRIATIONS.			Enrolment.....	Graduates.....
	Miscella- neous.....	Current expense..	Water and coal.....	Repairs....	Library....	Equipment.	Buildings..	Total.....		Income fund.....	Morrill fund.....	Hatch fund.....		
1883-'80	\$17,979			\$800	\$1,000	\$1,950	\$45,645	\$155,322	\$83,009	\$24,766			267	56
1880-'81							15,000	2,750	3,316	19,316			312	8
1881-'82							15,000	16,000	19,784	27,914			347	9
1882-'83				500	500	500	7,500	16,000	24,448	31,551			395	12
1883-'84				500	500	500	7,500	16,500	32,238	32,638			402	17
1884-'85	4,613			700	500	600	10,000	11,300	34,721	45,827			428	14
1885-'86				1,400	1,000	1,400	8,817	15,517	38,788	32,253			481	21
1886-'87				1,000	1,000	4,700	8,817	15,517	38,788	32,331			472	22
1887-'88	2,264 ¹			1,000	1,000	2,500	1,000	7,500	10,334	32,027			445	25
1888-'89	3,000 ²			1,900	1,000	2,900	1,000	8,225	8,732	34,131			514	27
1889-'90				1,649	1,000	2,900	1,000	6,799	6,857	28,765			593	52
1890-'91				3,050	1,000	2,950	4,000	10,625	15,219	50,722	\$31,000		584	35
1891-'92	3,000 ²			500	250		4,000	10,625	15,381	57,012	17,000		587	39
1892-'93				484	250		74,000	75,484	7,846	54,989	18,000		585	39
1893-'94				1,000			2,000	2,190	79,736	51,156	20,000		572	57
1894-'95	1,625 ³			4,300	999		3,480	17,456	13,933	51,928	22,000		647	66
1895-'96				1,895	1,000	5,057	3,480	17,456	157	51,500	22,000		734	55
1896-'97				2,084	1,300	550	1,300	16,234	157	51,500	22,000		803	69
1897-'98	629 ⁴			2,000	1,000	3,200	16,599	30,128	16,171	56,516	27,577		870	53
1898-'99				1,000	1,000	1,050	9,050	9,050	2,993	63,704	25,160		870	53
1899-'1900				3,000	1,500	22,240	43,500	89,850	45,582	65,822	25,000		1,094	58
1900-'01	7,893 ⁵			3,000	1,500	9,100	75,000	120,530	3,380	65,822	25,000		1,321	60
1901-'02	18,993 ⁶			3,000	1,500	9,100	10,000	59,980	79,917	73,467	25,000		1,396	52
1902-'03	4,130 ⁷			3,000	1,500	8,500	10,000	59,980	91,591	22,970	25,000		1,574	54
1903-'04	4,130 ⁷			3,000	1,500	18,500	65,000	150,830	89,490	25,688	25,000		1,605	102
1904-'05	15,830 ⁸			5,000	1,500	18,500	42,000	88,830			25,000		15,000	
1905-'06	5,830 ⁹			5,000	1,500	18,500	28,000	132,000			25,000		15,000	
1906-'07							28,000	128,000			25,000		15,000	
Total.....		100,000						\$1,239,523						

¹To restore endowment (not included in totals). ²Water-mains and sewer. ³\$2000 farmers' institutes, \$1800 salary state veterinarian, \$330 rent presi-
⁴\$1500 cadet uniforms, \$125 sewers. ⁵Rent president's house.
⁶\$2000 farmers' institutes, \$1800 salary state veterinarian, \$300 sewer, \$500
rent president's house.
⁷\$2000 farmers' institutes, \$1800 salary state veterinarian, \$330 rent presi-
dent's house, \$14,893 deficiency June 30, 1899.

Grounds and Buildings.

THE College grounds and buildings, occupying an elevation at the western limits of the city of Manhattan, and facing toward the city, are beautiful in location. The grounds include an irregular plat in the midst of a fine farm, with orchard, vineyard and sample gardens attached, the whole being surrounded by durable stone walls. The grounds are tastefully laid out and extensively planted, according to the design of a professional landscape-gardener, while well-graveled drives and good walks lead to the various buildings. All these are of the famed Manhattan limestone, of simple but neat styles of architecture, and admirably suited to their use. All recitation-rooms are excellently lighted and ventilated, and are heated by steam or hot water. A complete system of sewerage has been provided. The College owns 430 acres of land, valued at \$50,000, and leases 150 acres additional. The greater portion of these 580 acres is devoted to experiments.

ANDERSON (MAIN) HALL is 152x250 feet in extreme dimensions, arranged in three distinct structures, with connecting corridors. This building contains, in its two stories and basement, offices of the President and Secretary, cloak-rooms, studies, chapel, post-office, and offices and classrooms of the departments of drawing, music, mathematics, oratory, English, philosophy, preparatory, and printing. Cost, \$79,000. The value of the equipment and apparatus in this building is as follows: Executive, \$6799; drawing, \$2361; music, \$2179; mathematics, \$1581; oratory, \$57; English, \$84; preparatory, \$48; printing, \$5220.

MECHANICS HALL contains the following rooms, forming a connected structure: Wood shop, two stories, 40x103 feet. The upper floor contains office and drafting-room for the department of mechanical engineering. The lower floor contains benches for 220 students, and complete set of wood-working machinery and tools. Machine-shop, 40x80 feet; blacksmith shop, 40x50 feet; iron foundry, 40x50 feet; brass foundry, 16x30 feet; pipe-fitting room, 18x50 feet; engineering laboratory, 35x40 feet; power-room, 35x40 feet; boiler-room, 40x75 feet. Cost of buildings, \$28,125; value of equipment, \$32,594.

GYMNASIUM, one story, 35x110 and 46x75 feet of floor space, is in form of a cross. It contains a drill-room 46x75 feet, a large class-

room, cloak-room, dressing-room, toilet-room, ten bath-rooms, and two offices. Cost, \$10,000. Value of equipment, \$620.

HORTICULTURAL HALL, 32x80 feet, is a one-story building with cellar, having museum, classroom, and storage, with greenhouses attached. Cost of building was \$4200; value of equipment and apparatus is \$19,908.

HORTICULTURAL LABORATORY contains offices, workroom, five propagating houses, and insectary. Cost, \$5000.

ARMORY, 46x95 feet, is a two-story building. This building, which has served many purposes, is now fitted below for an armory and drill-room, and offices of military department; also dressing-room and bath-room for the various athletic teams; and above are classrooms, laboratories, offices and museum of the veterinary department. Cost of building, \$11,250. Value of equipment and apparatus: Military, \$135; veterinary, \$6336.

FAIRCHILD (LIBRARY) HALL is 100x140 feet, three and four stories high. This building provides permanent quarters for the library, with ample reading-rooms and offices, classrooms and laboratories for the departments of botany, entomology and zoology, and bacteriology, a classroom and office for the department of history and economics, general museum, and rooms for the various literary societies. Cost of building, \$67,750. Value of equipment and apparatus: Botany, \$15,083; history and economics, \$181; entomology and zoology, \$9580.

KEDZIE (DOMESTIC SCIENCE) HALL is 84x70 feet, two stories and basement. The first floor contains office, lecture-rooms and laboratories for the department of domestic science. The second floor is occupied by the department of domestic art. Cost of building, \$15,000. Value of apparatus: Domestic science, \$1960; domestic art, \$558.

AGRICULTURAL HALL, 90x95 feet, with its two stories and basement, contains offices, classrooms and laboratories for the departments of agriculture and animal husbandry. Cost of building, \$25,000. Value of equipment: Agriculture, \$3173; animal husbandry, \$24,611.

PHYSICAL SCIENCE HALL is 96x166 feet, and its two stories and basement contain offices, classrooms and laboratories for the departments of chemistry, and physics and electrical engineering. It is heated both by direct and indirect radiation, thus insuring perfect ventilation. Cost of building, \$70,000. Value of equipment: Chemistry, \$11,520; physics and electrical engineering, \$11,223.

AUDITORIUM is 113x125 feet, and has a seating capacity of 3000. Cost of building, \$40,000.

DAIRY HALL is 72 x 103 feet, one story and basement. It contains

office, classroom, butter-manufacturing room, cheese- and cheese-curing rooms, hand-separator room, laboratory, and refrigerator. Cost of building, \$15,000.

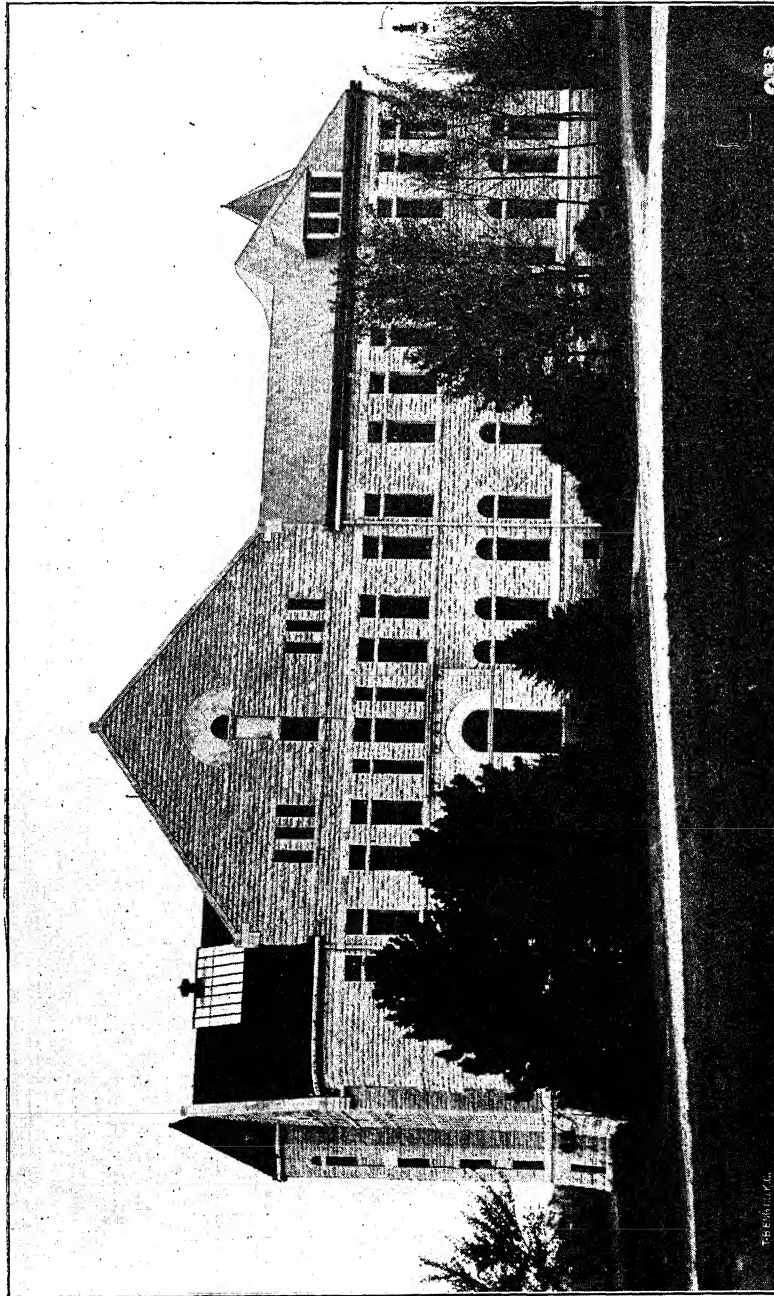
THE FARM BARN is a double but connected stone structure, 50 x 75 feet and 48 x 96 feet, with an addition of sheds and experimental pens 40 x 50 feet. The south wing, 48 x 96 feet, is the stock-judging room, having a seating capacity of 350. A basement underlies the entire structure. Cost, \$10,831.

THE DAIRY BARN, 40 x 175 feet, is fitted up with modern swinging stalls for eighty head of cows, arranged in two rows, with driveway between. Cost of building and equipment, \$4000.

THE HORTICULTURAL BARN is a stone building, containing store-room, granary, and stables for several horses. Cost, \$1000.

THE COLLEGE LIBRARY is one of the most important supplements to classroom instruction. It consists of 30,950 bound volumes and about 18,000 pamphlets. These books are mainly kept in a general library, but many volumes of technical character are withdrawn and held in departmental libraries. All of the books are indexed in card catalogues, which show their author, title, and to a large degree the details of their contents; also their location. Students are allowed free access to the shelves, a privilege and a source of culture that is given in perhaps no other library of its size in the country. Students may draw books for home use under simple and liberal regulations. The library is open daily, except on legal holidays, from seven A. M. to six P. M., and the librarian or an assistant is in constant attendance during this period to assist those who use the books. By all these means the library is used to the fullest extent and is of inestimable value.

The College subscribes for the leading literary, scientific and agricultural journals, while the principal daily and weekly papers of Kansas, and many from other states, are received in exchange for the College publications. All these are kept on file for the use of students and Faculty. The College has been designated as the depository of United States public documents for the fifth congressional district of Kansas, and 3580 volumes have already been received on this account. Value of books and equipment, \$61,011.



FAIRCHILD (LIBRARY) HALL.

Objects.

This College now accomplishes the objects of its endowment in several ways:

First. It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are offered in all its departments, while the students are kept in sympathy with the callings of the people.

Second. It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, physics, botany, entomology, zoology and mechanics are made prominent means of education to quick observation and accurate judgment. Careful study of the minerals, plants and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering and household economy show the application of science; and all are enforced by actual experiment.

Third. It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm and household departments is made a part of the general education for usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

Fourth. It seeks to extend the influence of knowledge in practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in nearly every county of the state, in which from one to three members of the Faculty share with the people in lectures, essays and discussions upon topics of most interest to farmers and their families. These institutes have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. Members of the Faculty are also prominently connected with the state associations for the promotion of agriculture, horticulture, and natural sciences, and education in general. Correspondence as to farmers' institutes or any question of practical interest in agriculture or related sciences is desired.

The *Industrialist*, published by the College, edited by the Faculty, and furnished to each student, gives a wide circulation to matters of interest in the College.

THE EXPERIMENT STATION.

The Agricultural Experiment Station of the College is organized and maintained under the provisions of what is known as the "Hatch act." It is officially designated as "An act to establish agricultural experiment stations in connection with the colleges established in the several states under the provisions of an act approved July 2, 1862, and the acts supplementary thereto." This was enacted "in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and practice of agricultural science." The law specifies in detail "that it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses for forage-plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable."

The Experiment Station, so established, is an important feature of the College. The President of the College, with the professors of agriculture, botany, chemistry, dairy and animal husbandry, horticulture, entomology, and veterinary science, form the Experiment Station Council, by authority of which experiments are undertaken, and carried on in the several departments under supervision of the professors. The heads of certain important departments of instruction in the College are thus also in charge of the several departments of investigation of the Station, and to a certain extent assistants serve in both capacities. The Experiment Station, therefore, is not definitely localized at the institution, but its work and property are more or less woven in with that of the College. The expenses of the Experiment Station work are separately accounted for, however, and its property is listed in separate inventories. While this arrangement involves some difficulties, it also possesses many advantages—advantages which are mutual. The College work profits by having the investigations of the Sta-

tion going on alongside. The Station profits in that it thus obtains, without charge, the use of the College farm, buildings, heat, light, various collections, museums, and in some cases apparatus. The expenses of the Experiment Station are met by an appropriation by Congress of \$15,000 per annum. The aims of the Station may be said to be twofold—those which lead to immediate returns, and those the object of which can be reached only after a series of years. Experiments of the greatest value are often of the latter kind, but if the work of the Station were limited to such, the public would feel that nothing is being accomplished. It is the intention of the Station force to make all of its experiments practical, in the sense that they lead to results which, indirectly if not directly, benefit the agricultural interests of the country.

The Hatch act provides "that bulletins or reports of progress shall be published at least once in three months, one copy of which shall be sent to each newspaper in the state or territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." The publications of the Station include annual reports, bulletins, and press bulletins.

Since 1889 the annual reports contain no details of experiments, but simply outlines of the work of the year in general and in the several departments, and including the financial statements required by law. These annual reports, not being of general interest, therefore, are printed in but small numbers, and sent to libraries and officials only, except on special request.

The bulletins are the means of communicating the results of the Station work directly to the farmers. They are issued in the quantities judged necessary to meet the demand. All investigations are described in them when completed, and they are sent to all on our mailing-lists. During the history of the Station the number issued has averaged about eight per annum.

The press bulletins are issued in limited numbers and sent to the papers, to certain state and county officers, and to a considerable number of public or semipublic institutions. They are short, readable, and popular, but at the same time accurate, articles on subjects of current interest, and embodying observations and experiments of members of the Station staff. Extra copies of some of them are printed for use in answering inquiries.

Persons desiring to receive the Station bulletins are requested to address Agricultural Experiment Station, Manhattan, Kan. General correspondence in reference to the Station should be sent in the same way, but inquiries concerning any special line of investigation should be sent to the head of the department in charge of such work.

FORT HAYS BRANCH STATION.—Congress, in an act approved March 27, 1900, ceded the Fort Hays military reservation, containing 7597.93 acres, to the state of Kansas, on condition that the state would establish and maintain there branches of the State Normal School and of the Experiment Station. The state legislature accepted the reservation in an act approved February 7, 1901, and designated a division of the land between the Normal School and the Agricultural College, by which the latter obtained about 3500 acres, including the parts most desirable for agricultural purposes. Situated west of the ninety-ninth meridian, the station will occupy a field entirely different climatically from that of any other station in the country, and the results obtained there ought to benefit a large region extending even beyond the boundaries of the state. Experiments are being tried on a large scale in making tests of varieties and methods of culture, with special reference to the needs of regions with deficient rainfall. Experiments are also made to determine the feeding value of the drought-resisting crops produced. This Branch Station is supported by state appropriations. The funds appropriated by Congress cannot be used for the support of substations.

INDUSTRIAL TRAINING.

This institution is preëminently industrial in its aims, methods, and tendencies. While the pure sciences, mathematics and other studies are rigorously taught, there is constantly present a practical atmosphere which incites the student to an application of the principles taught, and thus lends interest and value to the work. In nearly every term of the four-year course the student gives one hour per day to industrial training of one kind or another. This awakens and deepens sympathy with industry and toil, impresses the student with the essential dignity of labor, thus educating toward the industries instead of away from them, and lays a good foundation for a life-work in industrial and technical lines. Even should students not all return to the farm, the shop, or to housewifery, the wider knowledge afforded them and the broader sympathies engendered cannot but redound to their good, and to the advantage of society at large and the industrial classes in particular.

Throughout the first year young men take their industrial in the shops. They thus get a familiarity with tools and methods which enables them to do the wood- and ironwork commonly needed on the farm, and which is useful to all everywhere. The young women take sewing during the first year, and a certain amount of cooking practice. The utility of this needs no argument. After the first year there are differences in the industrial requirements corresponding to differences in the several courses of study. In the domestic science course the

various lines of household art constitute almost the entire industrial work, floriculture being given one term. In the mechanical engineering course shop work in one or another of its various kinds is required every term. In the agriculture course the industrials include practical instruction in the fields, orchards, gardens, and dairy, and in feeding. The general science course offers more latitude in choice of industrials after the first year. Young women may take sewing, cooking, printing, floriculture, or music. Young men may have woodwork, ironwork, dairying, farming, gardening, fruit-growing, or printing. The availability of these industrials depends somewhat on the season in some cases, so that not all are open each term. In addition to the above, a limited number of students is allowed typewriting as the industrial, upon recommendation of the head of a department having a machine.

The labor of students during assigned industrial time is not paid for, as its object is educational, and the student receives full value in the training afforded. In all the instruction in industrial lines special attention is given to making the courses systematic and progressive. Students desiring to give extra attention to such work are allowed every opportunity that the departments can afford. Many students acquire sufficient proficiency to be able to turn their skill to a financial advantage during the latter terms of their courses, and all who apply themselves with any diligence obtain a training that cannot fail to be of great benefit to them in after-life. The work of the several industrials will be found described in detail under the individual headings.

SPECIAL COURSES.

Persons of suitable age and advancement, who desire to pursue such branches of study as are most directly related to agriculture or other industries, may select such studies, under the advice of the Faculty.

GRADUATE COURSES.

Arrangements can be made for advanced study in the several departments at any time, and outlines of courses will be furnished on application. The electives of the extended course are open to graduates, and special opportunities will be given for investigation and research. Every facility for advancement in the several arts taught at the College will be afforded such students, though they are not required to pursue industrial training while in these courses.

DEGREES.

The degree of bachelor of science is conferred upon students who complete the full course of four years and sustain all the examinations. This degree entitles the holder to credit for studies pursued in any application for state teachers' certificate. (See Laws of 1893.)

The degree of master of science will be conferred in course upon graduates of the College who have received eighteen credits in an approved graduate course, each credit being equivalent to a full study pursued for three months.

Courses will be approved which are in line with any one of the regular undergraduate courses, and include at least six credits in the biological or the physical sciences, or mathematics, and at least six credits in technical or industrial branches.

The principal line of study shall be designated as the major, and another line as the minor study. As nearly as may be, one-third of the time is to be given to the minor and two-thirds to the major study, including in the latter such scientific, mathematical or technical branches as contribute directly to it. The minor study must fill a logical place in the scheme, so that the work as a whole may possess unity. Three minor credits may be a modern language.

Applications for graduate study shall be passed upon by the committee on graduate courses and referred by them to the Faculty for action. If approved by the Faculty, the candidate shall obtain an assignment at the beginning of each term for the studies intended to be pursued during the ensuing term. At the close of each term examinations shall be given in all branches, and the candidate shall be reported as "passed" or "not passed."

Applications for entrance upon graduate study and for changes in major or minor subjects must be presented to the committee on graduate courses within the first week of a College term.

Non-resident candidates will be required to send to the professors in charge of the departments of their major and minor subjects a full and complete report at the middle and end of each term of the work accomplished within that period. Failure to comply with this requirement will cause the candidate to be dropped from the roll of graduate students, to be reinstated only upon approval of the Faculty. At the end of each term the date, place and manner of the examination of non-residents shall be determined by the instructors concerned.

Upon the completion of the required work, and by the 15th day of May of the year in which the degree is desired, each candidate shall present to the committee on graduate courses, typewritten and in duplicate, a satisfactory thesis involving original work along the line of his major subject. Thereupon a special examining committee of three shall be appointed from the Faculty, of whom one member shall represent the major subject and another the minor, who shall examine the candidate orally on the subject-matter of his thesis, and report the result of such examination to the Faculty. Upon receipt

of the report of this committee, the Faculty will take action concerning the recommendation of the candidate for the degree.

The subject of the thesis must be presented to the committee on graduate courses for approval by the 1st day of January preceding the commencement at which the degree is desired.

Outlines of direction for study and research in various arts and sciences, with special adaptation to the wants and opportunities of individual applicants, will be furnished, at request, to all graduates; and professors in charge will gladly aid by correspondence in any researches undertaken.

The degree of master of science may be conferred upon the graduates of other colleges of like grade with our own, provided the applicant shall first satisfy the Faculty of his proficiency in the industrial studies distinctive of this institution, on the following conditions:

1. The applicant for the master's degree must be a graduate of at least three years' standing, and a resident of Kansas.
2. His graduate study shall have been in line with that required of graduates of this College, as published in our catalogue.
3. He must make application for the degree on or before the 1st day of January preceding the granting of the same. The application must be accompanied with a statement of his course of study, the work upon which the claim for the degree is based, and the subject selected for his thesis.
4. By April 1, an abstract of the thesis must be submitted to the Faculty.
5. Before May 15, the applicant shall present himself for examination. The examination shall be thorough and extensive, and shall be conducted by a special committee of the Faculty.

COURSES OF STUDY.

With a view to providing for the wants of the various classes of students, the following courses of study are offered:

1. Four-year courses, each leading to the degree of bachelor of science: (*a*) General science; (*b*) agriculture; (*c*) domestic science; (*d*) mechanical engineering; (*e*) electrical engineering; (*f*) architecture.
2. Short courses in (*a*) dairying, (*b*) domestic science, (*c*) agriculture.

Full explanations of the several courses, and of the studies included in them, will be found under the proper headings, and a general view of the four-year courses is given on the pages following.

All the preparatory and first-year subjects are taught each term, so that students may enter at any term. Students can complete nearly all the work of the first two years by attendance during winter terms only.

COURSES OF STUDY—First Year.

ALL COURSES.

FOUR-YEAR COURSES.

Figures following studies show class hours per week. Subjects in *italic type* require no study outside of class.

Military drill is optional for young men of the third and fourth years.

The electives are chosen under the direction of the Faculty. In each case, the electives are expected to be in the same line as nearly as possible. The following list is announced for the different courses:

AGRICULTURE.

German German.
Dairying Dairying.
Origin of Breeds and Stock Pedigrees and Advanced
Judging Feeding.
Pomology Ornamental Gardening.
Plant Diseases Plant-breeding.
Bacteriology Bacteriology.
Chemistry Chemistry.
Veterinary Science Veterinary Science.
Soil Physics Crop Production II.

DOMESTIC SCIENCE.

Trigonometry Physics II.
Logic American Literature.
Geology Ethical Vegetable-gardening.
History of Education and Plant Morphology
School Law Philosophy of Education
Bacteriology Bacteriology
Chemistry Chemistry.

GENERAL SCIENCE.

Analytical Geometry Differential Calculus.
Domestic Science I Domestic Science III.
Animal Nutrition Animal Breeding.
Dairying Breeds of Stock.
Entomology Crop Production
Chemistry Entomology
History of Education and Chemistry.
Bacteriology Philosophy of Education
Music Bacteriology
Music.

Music is optional throughout the course.

For outline of instruction, see page 45 *et seq.*

COURSES OF STUDY—Second Year.

AGRICULTURE.		DOMESTIC SCIENCE.		GENERAL SCIENCE.		MECH. ENGINEERING.		ELECT. ENGINEERING.		ARCHITECTURE.	
FALL TERM.		Chemistry I..... 5 Laboratory..... 2 Entomology..... 2½ Laboratory..... 6 German I..... 5 Public Speaking I... 2½ Physical Training... 4 or Music..... 4		Chemistry I..... 5 Laboratory..... 2 Trigonometry..... 5 Surveying..... 5 German I..... 5 Industrial..... 4 Drill..... 4 Physical Training, 4 or Music..... 4		Chemistry I..... 5 Laboratory..... 2 Trigonometry..... 5 Surveying..... 2 German I..... 5 Shop Lectures I..... 1 Projection Drawing... 2 Blacksmithing II... 2 Drill..... 4		Chemistry I..... 5 Laboratory..... 2 Trigonometry..... 5 Surveying..... 2 German I..... 5 Shop Lectures I..... 1 Proj. Drawing..... 2 Blacksmithing II... 2 Drill..... 4		Chemistry I..... 5 Laboratory..... 2 Trigonometry..... 5 Surveying..... 2 German I..... 5 Shop Lectures I... 1 Proj. Drawing..... 2 Blacksmithing II... 2 Drill..... 4	
WINTER TERM.		Chemistry II..... 5 Laboratory..... 2 Breeds of Stock.... 2½ Stock Judging..... 4 Physiology..... 5 Laboratory..... 2 Public Speaking II, 2½ Drill..... 4		Chemistry II..... 5 Laboratory..... 2 Entomology..... 5 Laboratory..... 2 German II..... 5 Dressmaking and Fabrics..... 6 Physical Training.. 4 or Music..... 4		Chemistry IV..... 2½ Laboratory..... 4 Kinematics..... 5 German II..... 5 Descriptive Geometry, 4 Public Speaking I.... 2½ Foundry..... 2 Drill..... 4		Chemistry IV..... 2½ Laboratory..... 4 Kinematics..... 5 German II..... 5 Descriptive Geom., 4 Public Speaking I... 2½ Foundry..... 2 Drill..... 4		Chemistry IV..... 2½ Laboratory..... 4 Kinematics..... 5 German II..... 5 Descriptive Geom., 4 Public Speaking I... 2½ Foundry..... 2 Drill..... 4	
SPRING TERM.		Chemistry III..... 2½ Laboratory..... 7½ Horticulture..... 5 Laboratory..... 4 Entomology..... 5 German III..... 5 Physical Training... 4 or Music..... 4		Chemistry III..... 2½ Laboratory..... 7½ Physiology..... 5 Laboratory..... 2 Public Speaking II, 2½ German III..... 5 Drill..... 4 Physical Training, 4 or Music..... 4		Chemistry V..... 2½ Laboratory..... 4 German III..... 5 Analytical Geometry.. 5 Public Speaking II... 2½ Shop Lectures II... 1 Mech. Drawing I.... 2 Pattern-making... 2 Drill..... 4		Chemistry V..... 2½ Laboratory..... 4 German III..... 5 Analytical Geometry.. 5 Public Speaking II... 2½ Shop Lectures II... 1 Mech. Drawing I.... 2 Pattern-making... 2 Drill..... 4		Chemistry V..... 2½ Laboratory..... 4 German III..... 5 Analytical Geom., 5 Public Speaking II, 2½ Shop Lectures II... 1 Mech. Drawing I.... 2 Pattern-making... 2 Drill..... 4	

Music is optional throughout the course.

For outline of instruction, see page 45 *et seq.*

COURSES OF STUDY — Third Year.

AGRICULTURE.	DOMESTIC SCIENCE.	GENERAL SCIENCE.	MECH. ENGINEERING.	ELECT. ENGINEERING.	ARCHITECTURE.
FALL TERM.					
European History.. 5	Rhetoric II..... 5	European History.. 5	Differential Calculus.. 5	Differential Calculus.. 5	Differential Calculus.. 5
Veterinary Science.. 5	Human Nutrition.. 5	Horticulture .. 5	Physics I..... 5	Physics I..... 5	Physics I..... 5
Animal Nutrition.. 5	Domestic Sci. I.... 2	Rhetoric II..... 5	Laboratory..... 4	Laboratory..... 4	Laboratory..... 4
Bacteriology..... 2½	Laboratory..... 4	German IV..... 2½	Mechanics..... 2½	Mechanics..... 2½	Mechanics..... 2½
Laboratory..... 4	German IV..... 2½	Linear Perspective.. 4	Shop Lectures III..... 1	Shop Lectures III..... 1	Art Lectures I..... 1
Horticulture Lab- oratory..... 2	Color and Design.. 4	Industrial..... 2	Machine-shop I..... 4	Machine-shop I..... 4	Linear Perspective.. 4
	Muscle elective.		Mech. Drawing II... 4	Mech. Drawing II... 4	Arch. Drawing..... 4
WINTER TERM.					
Civics..... 5	European History.. 5	Civics..... 5	Integral Calculus..... 5	Integral Calculus..... 5	Integral Calculus..... 5
Crop Production.. 5	Zoology..... 5	Bacteriology..... 2½	Physics II..... 5	Physics II..... 5	Physics II..... 5
Grain Judging.. 2	Laboratory..... 4	Laboratory..... 4	Laboratory..... 4	Laboratory..... 4	Laboratory..... 4
Rhetoric II..... 5	Domestic Sci. II... 2	Physics III..... 5	European History..... 5	European History..... 5	European History..... 5
Agricultural Chem- istry Lab..... 2	Laboratory..... 4	Laboratory..... 4	Mech. Drawing III... 4	Mech. Drawing III... 4	Art Lectures II..... 1
	German V..... 2½	German V..... 2½	Machine-shop II... 2	Machine-shop II... 2	Arch. Drawing..... 6
	Muscle elective.				
SPRING TERM.					
American History.. 5	Civics..... 5	American History.. 5	Definite Integrals..... 2½	Differential Equations, 2½	Definite Integrals... 2½
Stock Feeding..... 3	Home Decoration.. 2½	Zoology..... 5	Valve Gears..... 2½	Electricity..... 5	Civics..... 5
Agricultural Chem. 2	Bacteriology..... 2½	Laboratory..... 4	Civics..... 5	Laboratory..... 6	Rhetoric II..... 5
Vegetable-gardening. 5	Laboratory..... 4	Physics IV..... 5	Rhetoric II..... 5	Civics..... 5	Home Architecture.. 2½
Farm Mechanics and Man- agement..... 5	Domestic Sci. III.. 2	Laboratory..... 2	Shop Lectures IV..... 1	Rhetoric II..... 5	Art Lectures III..... 1
	Laboratory..... 4	German VI..... 2½	Machine-shop III... 4		Arch. Drawing..... 4
	Home Nursing..... 2½		Mech. Drawing IV... 4		Modeling..... 4
	German VI..... 2½				
	Muscle elective.				

Music is optional throughout the course.

For outline of instruction, see page 45 et seq.

COURSES OF STUDY — Fourth Year.

	AGRICULTURE.	DOMESTIC SCIENCE.	GENERAL SCIENCE.	MECH. ENGINEERING.	ELECT. ENGINEERING.	ARCHITECTURE.
FALL TERM.	Physics III..... 5 Laboratory..... 4 Zoology..... 5 Laboratory..... 3 Elective..... 5	American History... 5 English Literature I, 5 Household Management..... 5 Elective..... 5	Logic..... 5 Geology..... 5 Economics..... 5 Elective..... 5	American History..... 5 Economics..... 5 Steam-boilers..... 2½ Eng. Laboratory I..... 2 Graphic Statics..... 2½ Shop Lectures V..... 1 Machine-shop IV..... 2 Mech. Drawing V..... 4	American History..... 5 Economics..... 5 Direct-current Machines..... 5 Laboratory..... 4 Mech. Drawing IV..... 4 Electrochemistry..... 2	American History... 5 Economics..... 5 Heating and Plumbing... 2½ Graphic Statics... 2½ Art Lectures IV... 1 Arch. Drawing..... 4 Architectural Composition I..... 4
WINTER TERM.	Physics IV..... 5 Laboratory..... 2 Economics..... 5 Geology..... 5 Elective..... 5	Eng. Literature II... 5 Dietetics..... 2½ Laboratory..... 6 Psychology..... 5 Elective..... 5	Eng. Literature I., 5 Plant Morphology, 5 Laboratory..... 4 Elective..... 5 Industrial..... 4	English Literature..... 5 Thermodynamics I..... 5 Eng. Laboratory II... 4 Applied Mechanics I... 5 Shop Lectures VI..... 1 Machine-shop V..... 2 Mech. Drawing VI... 2	Direct-current Machines..... 2½ Alternating-current Machines, 2½ Laboratory..... 4 English Literature..... 5 Applied Mechanics..... 5 Eng. Laboratory I..... 4 Machine-shop III... 2	Eng. Literature..... 5 Geology..... 5 Applied Mech. I... 5 Art Lectures I... 1 Arch. Drawing..... 4 Architectural Composition II..... 4
SPRING TERM.	English Literature, 5 Animal Breeding... 5 Elective..... 5 Thesis..... 5	Therapeutic Cookery, 2 Laboratory..... 4 Economics..... 5 Elective..... 5 Thesis..... 5	Eng. Literature II, 5 Psychology..... 5 Elective..... 5 Thesis..... 5	Applied Mechanics II... 2½ Thermodynamics II... 5 Hydraulics..... 2½ Mech. Drawing VII... 4 Thesis..... 5 Eng. Laboratory III, 2	Alternating-current Machines, 5 Laboratory..... 4 Hydraulics..... 2½ Power Stations..... 2½ Dynamo Design..... 4 Thesis..... 5	Applied Mech. II... 5 Specifications..... 2½ Estimates and Contracts..... 2½ Thesis..... 5 Architectural Composition III..... 6 Roofs and trusses...

Music is optional throughout the course.

For outline of instruction, see page 45 *et seq.*

Agriculture Course.

This is an age of specialists, yet the specialist is far better equipped for his life-work if he is well grounded in the fundamental branches of knowledge. The College is better equipped than ever before, in the special lines of agriculture, horticulture, and animal husbandry; for giving the student thorough preparation and training in these lines. The sciences which are related to agriculture are not slighted, and all of the essential fundamental studies are given.

The young men who take the agriculture course will not only be well prepared successfully to carry on various lines of farming for themselves, but they will be competent to act as foremen, and, after some experience, as managers and superintendents of large farms or other agricultural interests. They will also be prepared to take positions in our agricultural colleges and experiment stations as instructors and assistants. More than this, the graduate from the agriculture course, whatever calling he may choose or wherever he may make his home, will be a strong and influential citizen as well as a skilful producer, because, while the studies of the agriculture course are primarily practical, emphasizing the business side of life, yet enough "culture" studies are offered to give the student a well-balanced and well-rounded education.

The time has passed, my young farmer friend, when an uneducated and unskilled man can become a successful farmer and a man among men. It is not so easy to make a good living at farming to-day as it was forty or even twenty years ago. The soil is poorer, competition is greater. There are many educated, hustling men engaged in the various lines of farming to-day, and if you want successfully to compete with them you must be educated, too. You must understand the soil and the great principles of cultivation, aeration, and soil-moisture conservation. You must know the science of plant growth and propagation; you must know the chemistry of the plant and of the soil. You must learn the principles of animal nutrition and balanced rations in stock-feeding. You must study the animal and be practiced in stock judging, in order to select your breeding stock. You must know a thousand things about agriculture which you do not know now, if you hope successfully to compete with those who have knowledge and training in these things.

The motto of the Agricultural College is *practice with science*. This does not mean, however, that the agriculture course student is put to work on the farm. The agriculture course is a course of study, not of manual labor. Some manual labor is required as practice work in the field and laboratory. The student is taught to handle tools in carpentry and blacksmithing; he is given some practice in handling stock, grafting, tree-planting, and general farm management. He is not sent into the fields to plow, harrow, or cultivate, but he has an opportunity to observe the best methods of farm practice and become acquainted with the great principles of agriculture which apply everywhere and upon which crop production and stock-breeding and -raising depend.

Every young farmer in the state of Kansas should take the agriculture course. It does not matter so much how long a man lives, as how much he lives, and one can live so much more and accomplish so much more after spending four years in College, that the time spent is never missed. Every young man can find means to carry him through College. "Where there is a will there is a way."

Agriculture Course.

First column of figures indicates hours per week.

Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Geometry I.....	5	83
English Classics.....	5	71
Botany II.....	5	51
Field-work.....	2	51
Free-hand Drawing.....	2	47
Woodwork I.....	4	85
Drill.....	4	91

WINTER TERM:

Geometry II.....	5	83
Advanced Composition.....	5	71
Agriculture.....	5	45
Elementary Psychology.....	1	97
Woodwork II.....	3	85
Object and Geometrical Drawing.....	4	47
Drill.....	4	91

SPRING TERM:

Algebra IV.....	5	83
Rhetoric I.....	5	71
Physics.....	5	102
Laboratory.....	2	102
Blacksmithing I.....	4	85
Elementary Projection.....	2	47
Drill.....	4	91

Second Year.

FALL TERM:

Chemistry I.....	5	54
Laboratory I.....	2	57
Dairying.....	2½	60
Laboratory.....	6	60
Trigonometry.....	5	83
Surveying.....	2	83
Public Speaking I.....	2½	111
Drill.....	4	91

WINTER TERM:

Chemistry II.....	5	55
Laboratory II.....	2	57
Breeds of Stock.....	2½	60
Stock Judging.....	4	60
Physiology.....	5	112
Laboratory.....	2	112
Public Speaking II.....	2½	111
Drill.....	4	91

SPRING TERM:

Chemistry III.....	2½	55
Laboratory III.....	7½	57
Horticulture.....	5	79
Laboratory.....	4	79
Entomology.....	5	73
Laboratory.....	2	73
Drill.....	4	91

Third Year.

FALL TERM:

European History.....	5	77
Veterinary Science.....	5	112
Animal Nutrition.....	5	57
Bacteriology.....	2½	112
Laboratory.....	4	112
Horticulture Laboratory.....	2	79

WINTER TERM:

Civics.....	5	77
Crop Production.....	5	45
Grain Judging.....	2	45
Rhetoric II.....	5	71
Agricultural Chemistry Laboratory.....	6	58

SPRING TERM:

American History.....	5	77
Stock Feeding.....	3	60
Agricultural Chemistry.....	2	57
Vegetable-gardening.....	5	79
Farm Mechanics and Manage- ment.....	5	46

Fourth Year.

FALL TERM:

Physics III.....	5	103
Laboratory.....	4	103
Zoology.....	5	73
Laboratory.....	4	73
Elective.....	5	28

WINTER TERM:

Physics IV.....	5	103
Laboratory.....	2	103
Economics.....	5	67
Geology.....	5	74
Elective.....	5	28

SPRING TERM:

English Literature.....	5	71
Animal Breeding.....	5	60
Elective.....	5	28
Thesis.....	5	—

Domestic Science Course.

The aim of the domestic science course is both specific and general. Technically it is an application of the science of bacteriology to the study of home sanitation and hygiene, of physiology and chemistry to the composition of foods and their effect, of physics as applied to heating and lighting. These sciences necessarily, therefore, underlie the successful and intelligent conduct of the home, whether it be large or small, and must be included in any well-arranged course of domestic science. In the kitchen laboratory a standard system of measurement is taught, and constant emphasis is placed upon neatness, accuracy and economy in the handling of the material and utensils. The instruction in domestic art includes all the various kinds of hand sewing, the making of plain garments, and a complete system of dressmaking. Thus, while the course is based upon studies of a thoroughly scientific nature, the laboratory and industrial features characteristic of the College are made highly practical and are continued throughout the course.

While the domestic science course emphasizes, primarily, the practical and material side of life, it does not stop here. To the end that well-rounded culture may be secured, studies are offered in this course in English, history, economics, psychology, and public speaking. The young women are constantly reminded that life is not all drudgery; that technical knowledge and scientific skill, even, fail to include the full meaning of education in its highest sense. They are taught that any training that fails to develop, harmoniously, body, mind and spirit is inadequate and incomplete. They are brought face to face with ideals as well as with actualities; and are made to see that, while skilful labor is the crowning dignity of life, grace, refinement and self-poise are the highest ingredients of true service.

As the truly useful woman must be both cultured and refined, one-third of the time of this course is given to history, art, literature, and economics, and about one-third to the sciences.

The elective during the fourth year gives considerable opportunity to specialize in some chosen line.

Domestic Science Course.

First column of figures indicates hours per week.

Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Geometry I.....	5	83
English Classics.....	5	71
Botany II.....	5	51
Field-work.....	2	51
Free-hand Drawing.....	2	47
Sewing I.....	4	63
Physical Training.....	4	100

WINTER TERM:

Geometry II.....	5	83
Advanced Composition.....	5	71
Cooking.....	5	63
Elementary Psychology.....	1	97
Sewing II.....	3	63
Object and Geometrical Drawing.....	4	47
Physical Training.....	4	100

SPRING TERM:

Algebra IV.....	5	83
Rhetoric I.....	5	71
Physics.....	5	102
Laboratory.....	2	102
Sewing III.....	4	63
Elementary Projection.....	2	47
Physical Training.....	4	100

Second Year.

FALL TERM:

Chemistry I.....	5	55
Laboratory I.....	2	57
Entomology.....	5	73
Laboratory.....	2	73
German I.....	5	75
Public Speaking I.....	2½	111
Physical Training or Music.....	4	100

WINTER TERM:

Chemistry II.....	5	55
Laboratory II.....	2	57
Horticulture.....	5	79
Floriculture.....	2	79
German II.....	5	75
Dressmaking and Fabrics.....	6	63
Physical Training or Music.....	4	100

SPRING TERM:

Chemistry III.....	2½	55
Laboratory III.....	7½	57
Physiology.....	5	112
Laboratory.....	2	112
Public Speaking II.....	2½	111
German III.....	5	75
Physical Training or Music.....	4	100

Third Year.

FALL TERM:

Rhetoric II.....	5	71
Human Nutrition.....	5	57
Domestic Science I.....	2	65
Laboratory.....	4	65
German IV.....	2½	75
Color and Design.....	4	48
Laundrying.....	2	65
Music elective.....		

WINTER TERM:

European History.....	5	77
Domestic Science II.....	2	65
Laboratory.....	4	65
Zoology.....	5	73
Laboratory.....	4	73
German V.....	2½	76
Music elective.....		

SPRING TERM:

Civics.....	5	77
Home Decoration.....	2½	48
Bacteriology.....	2½	112
Laboratory.....	4	112
Domestic Science III.....	2	65
Laboratory.....	4	65
Home Nursing.....	2½	65
German VI.....	2½	76
Music elective.....		

Fourth Year.

FALL TERM:

American History.....	5	77
English Literature I.....	5	72
Household Management.....	5	65
Elective.....	5	28

WINTER TERM:

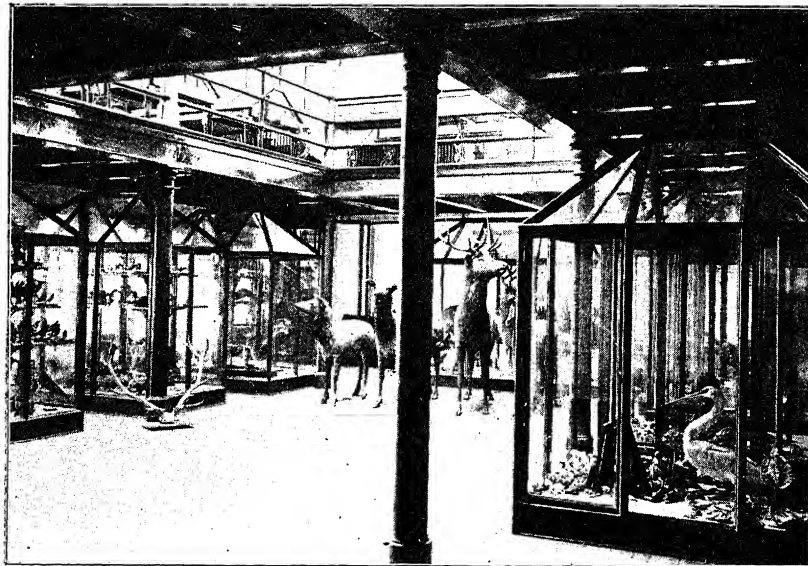
English Literature II.....	5	72
Dietetics.....	2½	65
Laboratory.....	6	65
Psychology.....	5	97
Elective.....	5	28

SPRING TERM:

Therapeutic Cookery.....	2	65
Laboratory.....	4	65
Economics.....	5	67
Elective.....	5	28
Thesis.....	5	—

General Science Course.

This course is designed to meet the wants of those who seek to obtain a sound and liberal education through the study of the mathematical, physical and natural sciences, English language, and history. It is well adapted to the student who has not yet decided upon his life-work, or who wishes to make this a foundation for further study. It is based on the principle of "a general knowledge of all things before a special knowledge of a few." It will be well worth one's time to take this course before beginning the work of a technical or professional course. Laboratory and industrial work are a feature of this course, as of all others. The electives continuing through the fourth year gives opportunity for some special lines, as follows: Young men may take analytical geometry, differential and integral calculus with the engineering students, by delaying American history till the spring term, fourth year, and young women may take the three terms in domestic science with the third-year women of the domestic science course. Other electives are announced on page 28. In each case, the electives for the three terms are expected to be in the same line as nearly as possible.



CORNER OF MUSEUM.

General Science Course.

First column of figures indicates hours per week.

Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Geometry I	5	83
English Classics	5	71
Botany II	5	51
Field-work	2	51
Free-hand Drawing	2	47
Woodwork I or Sewing I ..	4	85
Drill or Physical Training, 4		91

WINTER TERM:

Geometry II	5	83
Advanced Composition	5	71
Cooking or Agriculture	5	63
Elementary Psychology	1	97
Woodwork II or Sewing II, 3		85
Object and Geometrical Drawing	4	47
Drill or Physical Training, 4		91

SPRING TERM:

Algebra IV	5	83
Rhetoric I	5	71
Physics	5	102
Laboratory	2	102
Blacksmithing I or Sewing III	4	85
Elementary Projection	2	47
Drill or Physical Training, 4		91

Second Year.

FALL TERM:

Chemistry I	5	55
Laboratory I	2	57
Trigonometry	5	83
Surveying	2	83
German I	5	75
Industrial	4	—
Drill	4	91
Physical Training or Music	4	100

WINTER TERM:

Chemistry II	5	55
Laboratory II	2	57
Entomology	5	73
Laboratory	2	73
German II	5	75
Public Speaking I	2½	111
Projection Drawing	2	48
Drill	4	91
Physical Training or Music	4	100

SPRING TERM:

Chemistry III	2½	55
Laboratory III	7½	57
Physiology	5	112
Laboratory	2	112
Public Speaking II	2½	111
German III	5	75
Drill	4	91
Physical Training or Music	4	100

Third Year.

FALL TERM:

European History	5	77
Horticulture	5	79
Rhetoric II	5	71
German IV	2½	75
Linear Perspective	4	48
Industrial	2	—

WINTER TERM:

Civics	5	77
Bacteriology	2½	112
Laboratory	4	112
Physics III	5	103
Laboratory	4	103
German V	2½	76

SPRING TERM:

American History	5	77
Zoology	5	73
Laboratory	4	73
Physics IV	5	103
Laboratory	2	103
German VI	2½	76

Fourth Year.

FALL TERM:

Logic	5	97
Geology	5	74
Economics	5	67
Elective	5	28

WINTER TERM:

English Literature I	5	72
Plant Morphology	5	51
Laboratory	4	51
Elective	5	28
Industrial	4	—

SPRING TERM:

English Literature II	5	72
Psychology	5	97
Elective	5	28
Thesis	5	—

Mechanical Engineering Course.

This course offers four years' training in mechanical engineering subjects, and its object is to fit young men for responsible positions in that profession. It prepares for the successful management of machinery and manufacturing establishments, the designing, building and erection of machinery, superintendence of construction, etc. The course includes instruction by text-book, lecture, laboratory, and workshop practice, and is especially based on mathematics, pure and applied mechanics, physics, chemistry, machine design, structural design, and steam engineering.

The course of study has been laid out with the aim of securing a judicious mixture of theory and practice, such as will not only give the student the technical skill required for engineering operations, but also a broad grasp of the fundamental principles of his profession. The advantages of combining a practical application of principles with theoretical instruction at the time these principles are being impressed by classroom work is well known. The shop work, being purely educational in its character, is so arranged that each student can make as rapid advancement as possible. Instruction is given by skilled workmen, and the work carried on is of a practical character, being, in fact, the building of lathes, engines, drills and machinery for the market and the department. In all shop practice the students work from blue-prints, thus learning to read drawings readily and supplementing the work of the drawing department.

Based upon the fundamental principle that laboratory and shop work, combined with technical training, constitute one of the most important features of engineering education, the course on the opposite page is offered.



COLLEGE CAMPUS.

Mechanical Engineering Course.

First column of figures indicates hours per week.

Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Geometry I.....	5	83
English Classics.....	5	71
Botany II.....	5	51
Field-work.....	2	51
Free-hand Drawing.....	2	47
Woodwork I.....	4	85
Drill.....	4	91

WINTER TERM:

Geometry II.....	5	83
Advanced Composition.....	5	71
Agriculture.....	5	—
Elementary Psychology.....	1	97
Woodwork II.....	3	85
Object and Geometrical Drawing.....	4	47
Drill.....	4	91

SPRING TERM:

Algebra IV.....	5	83
Rhetoric I.....	5	71
Physics.....	5	102
Laboratory.....	2	113
Blacksmithing I.....	4	85
Elementary Projection.....	2	47
Drill.....	4	91

Second Year.

FALL TERM:

Chemistry I.....	5	55
Laboratory I.....	2	57
Trigonometry.....	5	83
Surveying.....	2	83
Shop Lectures I.....	1	85
German I.....	5	75
Projection Drawing.....	2	48
Blacksmithing II.....	2	85
Drill.....	4	91

WINTER TERM:

Chemistry IV.....	2½	55
Laboratory IV.....	4	57
Kinematics.....	5	85
German II.....	5	75
Descriptive Geometry.....	4	48
Public Speaking I.....	2½	111
Foundry.....	2	85
Drill.....	4	91

SPRING TERM:

Chemistry V.....	2½	55
Laboratory V.....	4	57
German III.....	5	75
Analytical Geometry.....	5	83
Public Speaking II.....	2½	111
Shop Lectures II.....	1	85
Mechanical Drawing I.....	2	85
Pattern-making.....	2	86
Drill.....	4	91

Third Year.

FALL TERM:

Differential Calculus.....	5	83
Physics I.....	5	102
Laboratory.....	4	102
Mechanics.....	2½	86
Shop Lectures III.....	1	86
Mechanical Drawing II.....	4	86
Machine-shop I.....	4	86

WINTER TERM:

Integral Calculus.....	5	83
Physics II.....	5	102
Laboratory.....	4	103
European History.....	5	77
Mechanical Drawing III.....	4	86
Machine-shop II.....	2	86

SPRING TERM:

Definite Integrals.....	2½	83
Valve Gears.....	2½	—
Civics.....	5	77
Rhetoric II.....	5	71
Shop Lectures IV.....	1	86
Mechanical Drawing IV.....	4	86
Machine-shop III.....	4	86

Fourth Year.

FALL TERM:

American History.....	5	77
Economics.....	5	67
Steam-boilers.....	2½	86
Graphic Statics.....	2½	86
Shop Lectures V.....	1	86
Engineering Laboratory I.....	2	86
Mechanical Drawing V.....	4	87
Machine-shop IV.....	2	87

WINTER TERM:

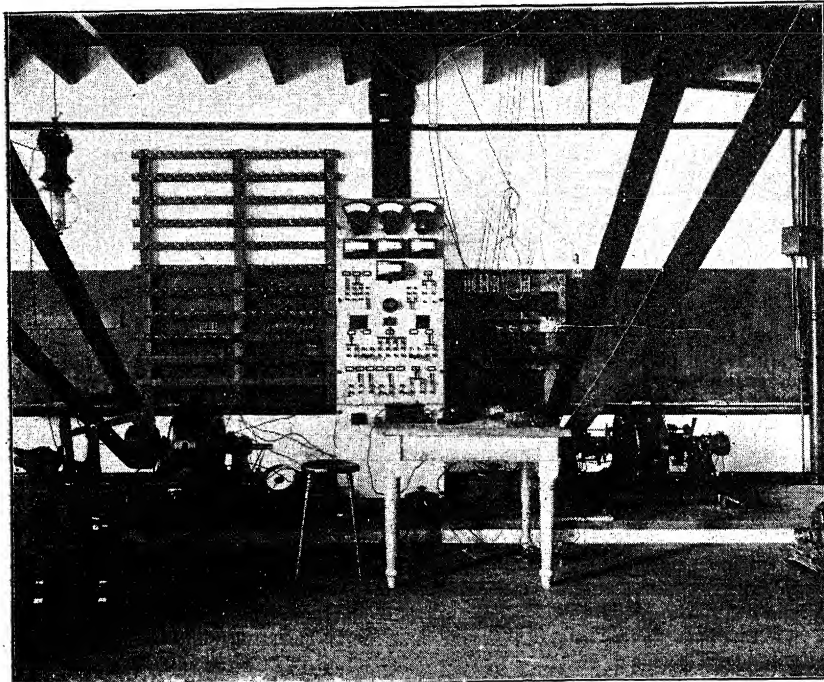
English Literature.....	5	71
Thermodynamics I.....	5	87
Applied Mechanics I.....	5	87
Shop Lectures VI.....	1	87
Engin'ring Laboratory II.....	4	87
Mechanical Drawing VI.....	2	87
Machine-shop V.....	2	87

SPRING TERM:

Applied Mechanics II.....	2½	87
Thermodynamics II.....	5	87
Hydraulics.....	2½	87
Thesis.....	5	88
Mechanical Drawing VII.....	4	87
Engin'ring Laboratory III.....	2	87

Electrical Engineering Course.

This course is arranged to supply the demand for men who have a practical knowledge of electricity, as well as a thorough knowledge of the principles and laws governing the forces and phenomena with which they have to deal. The applications of electricity are broadening out so rapidly by discovery and invention and by increased commercial applications, that new facts are to be met with almost daily. To meet these demands, the student should be well grounded in all the branches underlying his profession. This course is therefore made strong in mathematical and physical sciences. A well-equipped electrical engineer should also be a mechanical engineer, and must have some training in the principles of steam and hydraulic engineering as well as heat, plumbing, etc. Drawing, machine design, and mechanics of machinery, together with shop practice, occupy a considerable portion of the time of the student. Some general-culture studies are offered in history and economics, public speaking, and English. It is believed that this course will give a broad general training, with sufficient technical knowledge to meet the needs of a practical engineer. For the first two years this course is identical with the mechanical engineering course.



ELECTRICAL ENGINEERING LABORATORY.

Electrical Engineering Course.

First column of figures indicates hours per week.

Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Geometry I	5	83
English Classics	5	71
Botany II	5	51
Field-work	2	51
Free-hand Drawing	2	47
Woodwork I	4	85
Drill	4	91

WINTER TERM:

Geometry II	5	83
Advanced Composition	5	71
Agriculture	5	45
Elementary Psychology	1	97
Woodwork II	3	85
Object and Geometrical Drawing	4	47
Drill	4	91

SPRING TERM:

Algebra IV	5	83
Rhetoric I	5	71
Physics	5	102
Laboratory	2	102
Blacksmithing I	4	85
Elementary Projection	2	47
Drill	4	91

Second Year.

FALL TERM:

Chemistry I	5	55
Laboratory I	2	57
Trigonometry	5	83
Surveying	2	83
Shop Lectures I	1	85
German I	5	75
Projection Drawing	2	48
Blacksmithing II	2	85
Drill	4	91

WINTER TERM:

Chemistry IV	2½	55
Laboratory IV	4	57
Kinematics	5	85
German II	5	75
Descriptive Geometry	4	48
Public Speaking I	2½	111
Foundry	2	85
Drill	4	91

SPRING TERM:

Chemistry V	2½	55
Laboratory V	4	57
German III	5	75
Analytical Geometry	5	83
Public Speaking II	2½	111

Shop Lectures II	1	85
Mechanical Drawing I	2	85
Pattern-making	2	86
Drill	4	91

Third Year.

FALL TERM:

Differential Calculus	5	83
Physics I	5	102
Laboratory	4	102
Mechanics	2½	86
Shop Lectures III	1	86
Machine-shop I	4	86
Mechanical Drawing II	4	86

WINTER TERM:

Integral Calculus	5	83
Physics II	5	102
Laboratory	4	103
European History	5	77
Mechanical Drawing III	4	86
Machine-shop II	2	86

SPRING TERM:

Differential Equations	2½	83
Electricity	5	104
Laboratory	6	104
Civics	5	77
Rhetoric II	5	71

Fourth Year.

FALL TERM:

American History	5	77
Economics	5	67
Direct-current Machines	5	104
Laboratory	4	104
Mechanical Drawing IV	4	86
Electrochemistry	2	105

WINTER TERM:

Direct-current Machines	2½	104
Alternating-current Ma- chines	2½	104
Laboratory	4	104
English Literature	5	71
Applied Mechanics I	5	87
Engineering Laboratory I	4	86
Machine-shop III	3	86

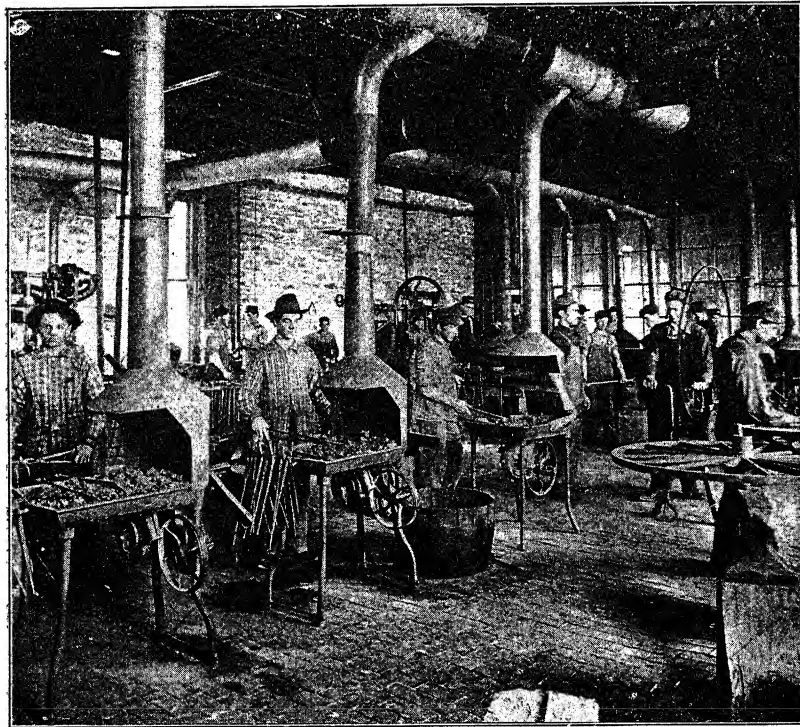
SPRING TERM:

Alternating-current Ma- chines	5	104
Laboratory	4	104
Hydraulics	2½	87
Power Stations	2½	105
Dynamo Design	4	104
Thesis	5	—

Architecture Course.

This four-year course is designed to meet the rapidly growing educational need of the building profession.

The Freshman and Sopomore years are identical with those of the mechanical and electrical engineering courses, and comprise, as will be seen in other parts of the catalogue, vigorous work in mathematics, drawing, surveying, physics, kinematics, English and German, supplemented by practice in the carpenter shop, machine-shop, and the foundry. The Junior and Senior years are given to advanced work in the lines named, supplemented by theoretical and practical work in perspective and rendering, building construction, modeling, specifications and estimates, architectural drawing, architectural composition, etc. The department of architecture and drawing is well equipped with models, casts, samples of building materials, blue-prints and lithographs of modern structures, photographs of historic buildings, etc., and is in condition to offer unusual opportunities to Western students of architectural art.



BLACKSMITH SHOP.

Architecture Course.

First column of figures indicates hours per week.

Second column shows page in this catalogue where full description may be found.

First Year.

FALL TERM:

Geometry I	5	83
English Classics	5	71
Botany II.....	5	51
Field-work.....	2	51
Free-hand Drawing	2	47
Woodwork I.....	4	85
Military Drill	4	91

WINTER TERM:

Geometry II.....	5	83
Advanced Composition	5	71
Agriculture	5	45
Elementary Psychology.....	1	97
Woodwork II.....	3	85
Object & Geomet'l Drawing,	4	47
Military Drill.....	4	91

SPRING TERM:

Algebra IV	5	83
Rhetoric I	5	71
Elementary Physics.....	5	102
Laboratory	2	102
Blacksmithing I.....	4	85
Elementary Projection.....	2	47
Military Drill.....	4	91

Second Year.

FALL TERM:

Chemistry I.....	5	55
Laboratory I.....	2	57
Trigonometry	2	83
Surveying	2	83
Shop Lectures I.....	1	—
German I.....	5	75
Projection Drawing	2	48
Blacksmithing II.....	2	85
Military Drill.....	4	91

WINTER TERM:

Chemistry IV.....	2½	55
Laboratory IV.....	4	57
Kinematics	5	85
German II.....	5	75
Descriptive Geometry.....	4	48
Public Speaking I.....	2½	111
Foundry	2	85
Military Drill.....	4	91

SPRING TERM:

Chemistry V.....	2½	55
Laboratory V.....	4	57
German III.....	5	75
Analytical Geometry	5	83
Public Speaking II.....	2½	111
Shop Lectures II.....	1	85
Mechanical Drawing I.....	2	85
Pattern-making	2	86
Military Drill.....	4	91

Third Year.

FALL TERM:

Differential Calculus.....	5	83
Physics I.....	5	102
Laboratory	4	102
Mechanics	2½	85
Art Lectures I.....	1	48
Linear Perspective	4	48
Architectural Drawing I.....	4	49

WINTER TERM:

Integral Calculus	5	83
Physics II.....	5	102
Laboratory	4	103
European History.....	5	77
Art Lectures II.....	1	48
Architectural Drawing II.....	6	49

SPRING TERM:

Definite Integrals.....	2½	83
Civics	5	77
Rhetoric II.....	5	71
Home Architecture.....	2½	—
Art Lectures III.....	1	48
Architectural Drawing III.....	4	49
Modeling	4	49

Fourth Year.

FALL TERM:

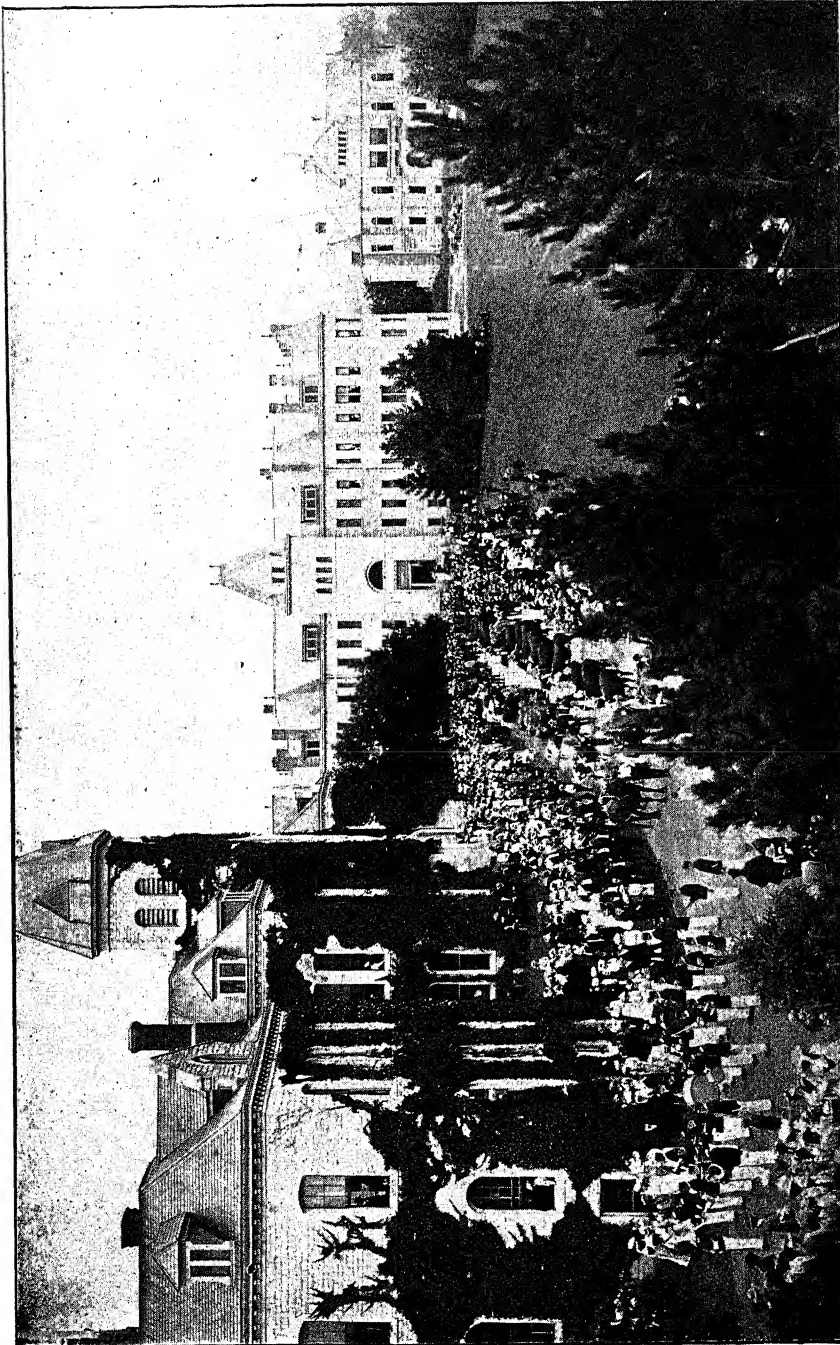
American History.....	5	77
Economics.....	5	67
Heating and Plumbing.....	2½	49
Graphic Statics.....	2½	86
Art Lectures IV.....	1	48
Architectural Drawing IV.....	4	49
Architectural Composition I.....	4	49

WINTER TERM:

English Literature.....	5	71
Geology.....	5	74
Applied Mechanics I.....	5	87
Art Lectures V.....	1	48
Architectural Drawing V.....	4	49
Architectural Compos'n II.....	4	49

SPRING TERM:

Roofs and Trusses.....	5	49
Specifications.....	2½	49
Estimates and Contracts	2½	49
Thesis	5	—
Architectural Compos'n III.....	6	49



STOCK PARADE.

Outline of Instruction.

Agriculture.

Agriculture, in its restricted sense, includes four general lines of study: Soils, crops, farm mechanics, and farm management. In the published course of study, farm mechanics and farm management are given one-half term each. The more advanced work in soils and farm mechanics are included in soil physics No. 5, elective, and in farm mechanics II, elective. The course requires a full term's work in crop production and grain judging, while, for those who wish to specialize in this line, advanced work in this subject is offered as an elective in the fourth year. Agriculture No. 1 takes up the elementary study of soils and crop production and serves as an introduction to the several branches of agriculture, animal husbandry, and dairying.

It is proposed to make the agricultural studies thoroughly practical. Agriculture is a business. It is not truly a science, but it depends upon science, and to understand the "principles of agriculture" requires a knowledge of many sciences. Physics, botany, chemistry, geology and mathematics teach theory and science, and the studies in agriculture will assist the student to make the application and put the theory and science into practice on the farm.

1. **Agriculture.** First year, winter term. An elementary study of the soil—its formation, texture, plant-food, moisture, tillage, and fertility; the plant—its relation to the soil and climate, its propagation, growth, and cultivation; the kinds of crops and their culture; the animal—its life, feeding, breeding, and management. Text-book, Bailey's Principles of Agriculture.

2. **Crop Production.** Third year, winter term. A study of farm crops as to the preparation of the seed-bed, planting, cultivating, harvesting, root systems, maintenance of soil fertility, rotation of crops, manures and fertilizers, noxious weeds, injurious insects and diseases, and their remedies. Each of the staple crops will be taken up in order, its history, characteristics, methods of culture, uses, etc., noted. Seed selection and the storing, feeding and marketing of crops will also receive attention. Crops will be studied in classes as to their special purposes or uses, as hay, forage, silage, pasture, soiling, green manure, and cover-crops. New crops will be investigated. All the different crops are grown on the farm, so that the students may see them, or at least see samples in the classroom, and thus become familiar with their characters and methods of culture and handling. Lectures and text-book.

Grain Judging is supplementary to the classroom work in crop production. This will consist mainly of work in the judging-room, in the scoring of corn and common cereals according to inspectors' and buyers' standards, or according to recognized standards of perfection. A special study will be made of corn in the selection of seed ears. It is surprising how few people can pick out a good ear of corn before they are carefully instructed and trained in the vital points, both as to desirable qualities and defects. It is just as important to select and grow a pure and perfect type of corn or wheat as it is to select a well-formed hog or perfect type of dairy animal for breeding purposes. A higher per cent. of protein, greater productiveness, and other valuable qualities, which may be bred into corn

by careful and intelligent selection, should greatly increase the value of this crop to the farmer.

3. **Farm Mechanics and Management.** Third year, spring term. Includes the study of the following subjects: Selection of a farm, as to location, soil, climate, etc.; relation of farming to other occupations; the farm equipment; different systems of farming; field and crop management; keeping farm accounts; necessity, method and kind of accounts. Practice work is required of each student, in which he shall carefully prepare records of the farm operations and business transactions for one year on his own farm or that of some successful farmer. Questions of farm economy are carefully studied, such as the care of farm buildings and works, management and care of stock, fencing, ditching, etc. Some study will be made of rural law relating to property, deeds, and conveyances; water rights, highways, legal fences, contracts, liabilities of employer and employee: notes, mortgages, bills of sale, etc. Farm management is meant not only to train men so that they may successfully apply business methods in carrying on their own farms, but to equip them for the superintending and management of large farms. This College, as well as other agricultural colleges, has many demands for men "who are properly trained in the management of large agricultural interests," and it is the aim of this course to develop men for this work. Text book, Robert's Farmers' Business Handbook.

ELECTIVES.

4. **Soil Physics.** Fourth year, fall term. A study of soil formation and mechanical composition, including a special study of the physical problems of the soil as regards texture, tillage, movements of soil water, soil-moisture conservation, aeration of the soil, draining and warming the soil. A study of the implements of tillage as to their purpose and use.

Laboratory.—Will consist largely of the demonstration and application of the principles of soil physics taught in the classroom, both by work in the laboratory and in the field. The students will be given practice work in determining soil moisture, in cultivation methods, and in mechanical analysis of soils. Text-book, King's Physics of Agriculture.

5. **Farm Mechanics II.** Fourth year, winter term. This will be a continuation of the work begun in the third year. The special subject will be farm machinery, its invention, history, and development; a study of the principles of construction and operation, with comparison of the different makes of machines of the different kinds and classes, according to their adaptation for special conditions and uses. As time permits, the work in other lines of farm mechanics will be continued, especially as related to the construction, ventilation and drainage of farm buildings, and the making and maintaining of roads. The work in the laboratory will consist largely of the demonstration and application of the principles taught in the classroom, including tests of the strength of timbers of different kinds and dimensions, the use of the dynamometer in testing the draft of wagons, etc., and the illustration of draft principles as related to the size and weight of the horse and arrangement of the harness, hitch, etc. Each student will be given some work in the taking down and putting up of farm machines, in order that he may learn their parts and construction.

6. **Crop Production II.** Fourth year, spring term. This course includes a study of the following: Standard crops, as to their origin, development, and special adaptation to soil, climate, etc.; investigations of new crops; the harvesting, thrashing, storing and marketing of crops; the products manufactured from each, and their uses; plant improvement by selection, cross-fertilization, and by

special culture and fertilization of the soil; practical methods of plant-breeding which may be undertaken by the farmer; plans for breeding fields; methods of taking and preserving breeding records; storage, maturity, and other factors, as affecting germination and vitality of seeds, etc.

A study will also be made of the organization, lines of work and the more important results of experiments by the state experiment stations and by the United States Department of Agriculture. The important principles of experimental work will be studied, and each student will be required to plan and conduct, under the direction of the instructor, some experiment along agricultural lines, and to prepare a written discussion of the subject, giving the results of the experiment. The experiment may include any line of work in charge of the agronomy department, such as studies in germination and purity of seeds, market conditions of grain, culture methods for different crops, effects of various methods of cultivation on temperature and moisture of the soil, etc. This course gives an opportunity for the student to begin some kind of original investigation which he may continue as a graduate student and allows him a choice of many lines of field-work which could not be commenced during the early part of the academic year.

Architecture and Drawing.

Drawing is the language of form and the key to every artistic and nearly every industrial pursuit. The educational and practical value of an extended and systematic course in its various branches can hardly be overestimated. The general aims of the several courses in industrial art are the same: (a) The cultivation of observation and analysis of form; (b) the development of correct taste; (c) the teaching of the different methods of graphic representation; (d) the acquirement of skill in handling drawing tools.

Of the studies described below, Nos. 1 to 4, inclusive, are required in all courses; Nos. 5 and 7, in the general science course; Nos. 5 and 6, in the engineering courses; and Nos. 8 and 9, in domestic science.

The College furnishes drawing-board, T square, triangles and water-colors for the graphic work done at the College; but all tools for home use, including drawing-board, T square, triangles, compasses, shading pen, and protractor, must be furnished by the student.

1. Free-hand Drawing. First year, fall term. Exercises with forms involving the right line and the arc, illustrating the effects of geometrical arrangement, repetition, alternation, symmetry, proportion, harmony, and contrast. After a few lessons in geometrical lines, the conventional surface ornament is taken up, and more subtle curvatures and complex forms are introduced. Text-book, Walters's Industrial Drawing, envelopes 2 and 7.

2. Object Drawing. First year, winter term. Discussion and drawing of geometrical models and simple objects. Exercises in shading from the object and from the imagination.

3. Geometrical Drawing. First year, winter term. Construction of perpendiculars, parallels, angles, polygons, tangents, etc. Construction of the ovoid, oval, ellipse, and spiral. Drawing, in India ink and water-colors, of various geometrical designs and architectural forms. Use of drawing-board and T square. Text-book, Walters's Industrial Drawing, envelopes 11 and 12.

4. Elementary Projection. First year, spring term. Principles of orthographic projection; the profile plane; the secant plane; rotation in space; change of ground line. Development of surfaces. Interpenetrations of the prism and pyramid. Projection of the circle, cylinder, and cone.

5. **Projection Drawing.** Second year, fall or winter term. Construction and projection of the conic sections. Construction of the spiral and helix. Construction of screw forms. Interpenetrations of the cone, cylinder, and sphere. Shades and shadows of simple geometric forms. Problems in monodiametric and isometric projection.

6. **Descriptive Geometry.** Second year, spring term. Discussion and solution of the usual problems relating to the point, right line, and plane. Generation and classification of lines and surfaces. Discussion and construction of tangents, normals, and asymptotes to lines and surfaces. General characteristics of warped surfaces. Graphic analysis of the hyperbolic paraboloid, the conoid, the hyperboloid of revolution, the cylindroid, the helicoid, etc.

7. **Linear Perspective.** Third year, fall term. Linear perspective is taught as central projection, and is intended to furnish the scientific answers to the questions which constantly confront the student of drawing from the object. It comprises the subjects of vanishing points, vanishing traces, measuring points, cylindric perspective, perspective corrections, shades and shadows in perspective, and studio methods. The models used in the work in sketching are objects whose forms bear close relationship to geometrical types. The students are led to recognize the facts, relations and principles involved in the apparent form of the object, to note the distribution of light, shade, shadow and reflection on the same, and deduce the general principles which the observation and comparison of these appearances are found to establish. Each student is required to make a number of original crayon and ink sketches during the term.

8. **Color and Design.** Third year, fall term. Discussion of the nature and influence of color, its use and abuse, and the principles that underlie good design and consistent, harmonious color combinations. Original designs in construction and decoration as applied to fabrics, dress and articles of common use in the home, that young women may recognize and appreciate that which is beautiful and appropriate, and may become more discriminating as purchasers.

9. **Home Decoration.** Third year, spring term. A study of design in its application to the home; its plan, furniture, and decoration. Emphasis is laid upon the refining and educating influence of well-chosen and appropriate decoration, the importance of simplicity being urged. Lectures on fine arts and the handicrafts, teaching that the home should show that fine art and industrial art are not to be considered separately.

Problems in planning and decorating houses.

The following is a brief outline of the special branches of the course in architecture:

10. **Art Lectures I.** History and characteristic forms of Egyptian, Greek and Roman architecture.

11. **Art Lectures II.** History and characteristic forms of Romanesque, Byzantine, Moorish and Gothic architecture. Influence of climate and building materials.

12. **Art Lectures III.** History and characteristic forms of renaissance and neo-Greek architecture. Development of plastic ornamentation. Rise and growth of landscape art.

13. **Art Lectures IV.** Modern architectural styles and tendencies. Influences of modern machinery, building materials, and methods of transportation. The colonial; the American-Romanesque; the American-classic.

14. **Art Lectures V.** Architectural details; foundations, roofs, cornices, modern conveniences, stairs and elevators, modern methods of decoration, etc.

15. **Architectural Drawing.** This work is closely adjusted to the subjects of the art lectures given during the same term. It consists of exercises in drawing characteristic details, ornaments, facades, plans and sections of some of the representative buildings of the art period studied. Text-book: Volume 33, International Text-book Company.

16. **Modeling.** Modeling in clay of architectural details and ornaments. Original work in plastic composition. Glue and plaster molds, work in plaster casting. Text book, *Technique of Sculpture*, by W. O. Partridge.

17. **Heating and Plumbing.** Systems of heating buildings; methods of ventilation; dry closets; water-supply; plumbing; sewer construction; sewage disposition.

18. **Specifications.** Discussion and composition of standard specifications for residences and simple public buildings.

19. **Estimates and Contracts.** Detail estimates of stonework, concrete, and brickwork, lumber, plastering, painting, labor, etc. Methods of making lump estimates. Study of quotations of building materials. Discussion of the principles and forms of building contracts. The status of the architect and superintendent. Bonds, mechanics' liens, building laws, etc.

20. **Architectural Composition I.** Original work. Each student is required to draw, finish, trace and blue-print a full set of plans, elevations and details of a modern frame dwelling of given cost, size, and general form.

21. **Architectural Composition II.** Original work. Each student is required to draw, trace, finish and blue-print a full set of plans, elevations and the most important details of a modern stone or brick schoolhouse. The general character of the building, its cost, limit, the floor space of its rooms, closets, and halls, and the extent of the required conveniences, are given by the instructor.

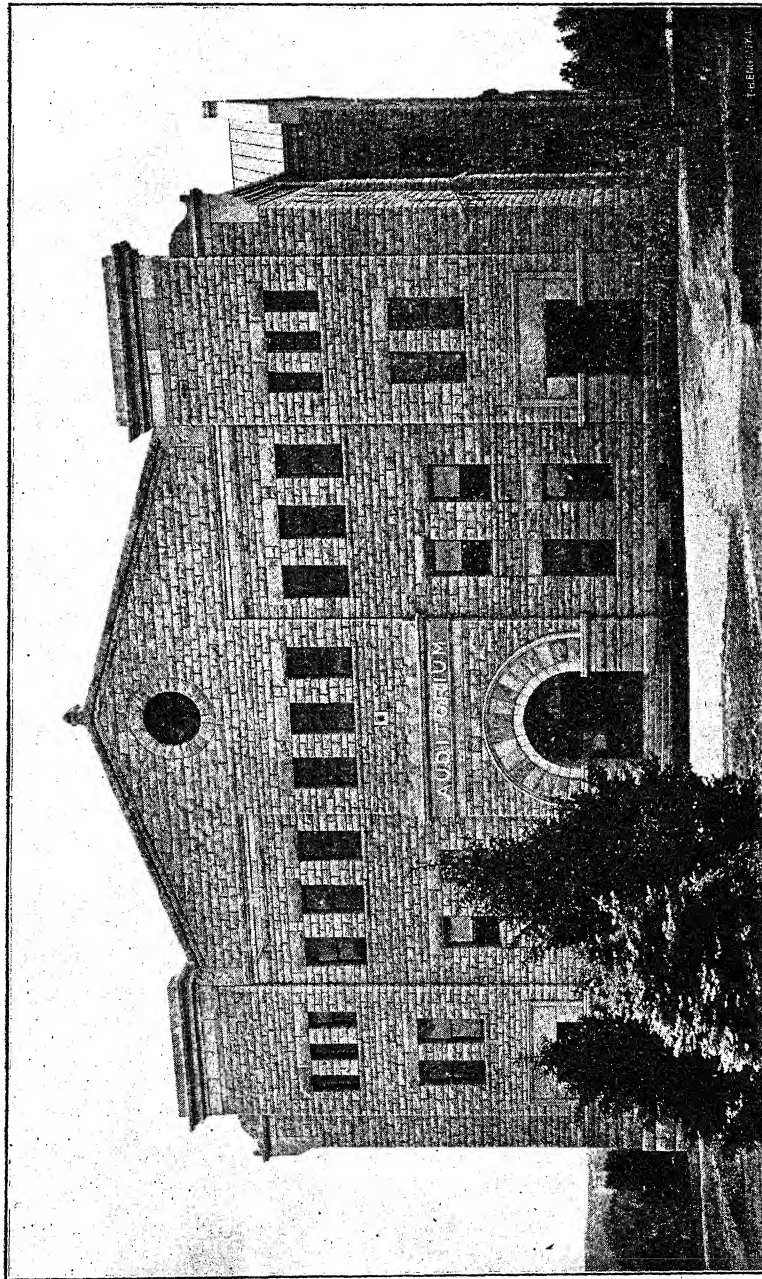
22. **Architectural Composition III.** Original work. Each student is required to draw, finish, trace and blue-print a full set of plans, elevations and details of a stone church, or public building. The general type of architecture, the character of the building material, the cost, limit of lot and floor space are given by the instructor.

23. **Roofs and Trusses.** Study of modern methods of iron and steel construction applied to columns, struts, beams, trusses and concrete reinforcements. Study of foundation, roofing and drainage problems. Text-books: *Kidder's Hand-book for Architects and Builders*; also, Nos. 97-A and 657-B of the International Text-book Company.

Students taking the architectural course are required to devote their summer vacations to practical work in actual building operations.

EQUIPMENT.

The College is well equipped to maintain a course in architecture. Its mechanical workshops are the most extensive west of the Missouri; its physical science laboratories are provided with an abundance of modern scientific apparatus; it owns a rapidly growing collection of several hundred plaster casts, tile and terra-cotta samples, marble specimens, etc.; it has a fine collection of models of the classic orders; a collection of blue-prints of nearly all the Kansas state buildings; a large number of modern books on architecture and engineering; a bound set of the *International* edition of the *American Architect*; a bound set of the *Inland Architect* and of several European architectural magazines, a well-equipped blue-print room, etc. The substantial stone building is of the institution and the complete system of water-supply, drainage, heating and lighting furnish excellent illustrative material.



AUDITORIUM.

Botany.

The instruction in the botanical department is along three lines:

First, as a Pure Science.—The department aims to give the student the training in observation and scientific reasoning, and also the information which he should have as a matter of general knowledge, regardless of his subsequent vocation. Botany is the first natural science to which the student is introduced in his College course, and for this reason it is necessary that he receive in this department his elementary training in scientific methods.

Second, as a Science Underlying Agriculture.—It is well recognized that botany is one of the most important of the sciences upon which the practice of agriculture is based, for the reason that botany deals with plant life, and plant life is at the basis of agriculture. Whenever practicable, illustrations and examples in both the elementary and advanced work are chosen with particular reference upon agriculture.

Third, Technical Botany, including such subjects as are of direct application in agriculture. The training in the special botanical studies of the agriculture course is chiefly of this nature, as will be seen by consulting the outline below.

Of the studies described below, No. 1 is required in all courses, and No. 2 in the general science course.

1. **Elementary Botany II.** First year, fall term. This course covers the elements of morphology, physiology, and ecology. All of the great groups of plants are taken up and discussed in the order of their evolutionary development. Especial attention is given to the changes in structure which appear in response to changes in environment. Emphasis is laid upon the plasticity and adaptiveness of the plant organism. By grasping this fundamental conception at the outset, the facts of plant life, particularly studied in horticulture and agriculture, become more comprehensible and significant. A general study of the classification of the plant kingdom, sufficient to enable the student to understand the broad outlines and the relationships of the great alliances is secured in this course, and, by coming into close contact with plants as living organisms in their natural habitats, he becomes acquainted with the factors that regulate their life and activity. Coulter's Plant Studies is the text used.

Field-work.—Certain definite problems in plant ecology are assigned to different groups of students, and a report of observations made, together with drawings of twenty-five representative plants in the localities studied, is required. The materials called for are: A drawing tablet, a key to the local flora, published by the department, and a simple lens.

2. **Plant Morphology.** Fourth year, winter term. In this course the forms and structural relations of representatives of all the great groups of plants are studied in detail in the laboratory. The purpose is to give the student a comparative insight into the morphological characters of the more important groups of the plant kingdom, and a conception of their genetic relationships and their development and position in the evolutionary series. Coulter's Plant Structures is the text followed, supplemented by lectures.

Laboratory.—Laboratory work occupies four hours per week throughout the term. Accuracy of observation is tested by exact studies of representatives of all the great groups of plants, both with the unaided eye and by means of the

microscope. Detail drawings, according to furnished outlines, are required. Drawing materials are provided by the student. All necessary reagents and instruments are supplied by the department.

ELECTIVES.

3. **Plant-breeding.** Fourth year, spring term. This course is devoted to the study of the evolution and breeding of plants. The laws of heredity and variation are studied in detail, with especial reference to their application to the improvement of economic plants, and a critical study is made of the principles underlying seed and plant selection and hybridization. The history of the evolution and development of economic plants is taken up in considerable detail, and a critical examination is made of the methods followed and results obtained by investigators in plant breeding here and abroad. The extended series of experiments now being conducted by the Experiment Station will be used for illustrative purposes. The course is given by lectures, supplemented by laboratory work, and a seminar in plant-breeding, held once a week.

Laboratory.—Laboratory work will involve experiments in seed and plant selection, hybridization, the statistical study of variation, etc.

4. **Plant Diseases.** Fourth year, fall term. The term is devoted to the study of causes of diseases in economic plants. The study is familiarized by the lectures with the great groups of the parasitic fungi and their chief subsidiary groups. The general morphology of these is discussed successively, and the morphology and physiology of the particular representative of each selected for laboratory study is given in detail, together with combative and preventive measures. A rich herbarium of types and a constantly growing set of duplicates furnish abundant material for the work, and are supplemented by alcoholic specimens properly killed and fixed, and by prepared slides. Ample literature on the subject of plant diseases is afforded by the library of the department and of the Experiment Station. H. Marshall Ward's *Diseases in Plants* is used as a text. Prerequisites are courses 1 and 2, or their equivalents.

Laboratory.—In the laboratory work pathological specimens are examined, and the changes induced in plants by fungi and by abnormal physical conditions are studied in detail under the microscope. The object of this course is rather to study the working of diseases from the standpoint of the host than to become acquainted with the groups of parasitic fungi, although a sufficient study of the morphology of these for practical purposes is made in the laboratory.

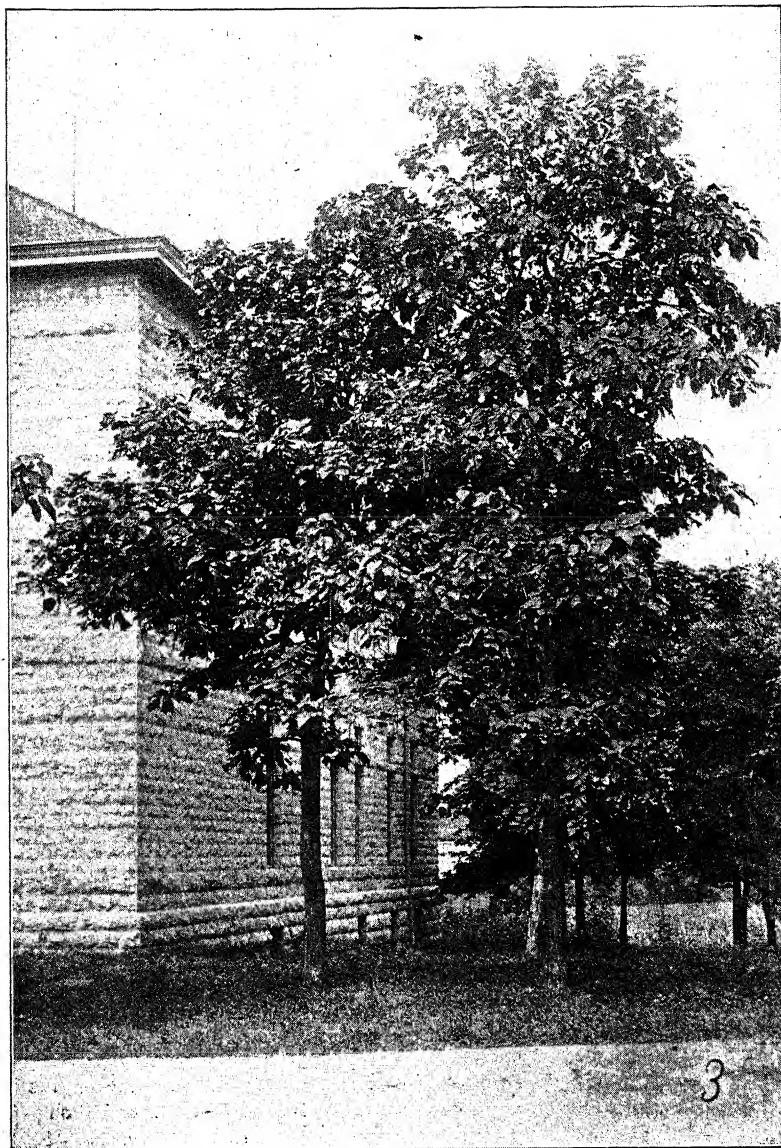
GRADUATE COURSES.

5. **General Morphology of Thallophytes.** Winter term. Lectures and laboratory work. This course involves a detailed study of the morphological characters of the algæ, fungi, and lichens.

6. **General Morphology of Bryophytes and Pteridophytes.** Spring term. Lectures and laboratory work. The work begun in course 4 is here continued in the higher groups of liverworts, mosses, and ferns. Especial attention is given to evolutionary lines of development in these groups.

7. **General Morphology of Spermatophytes.** Spring term. Lectures and laboratory work. The work of this course will be given in alternate years with course 5, and covers the morphology of the gymnosperms, monocotyledons, and dicotyledons, representatives of each of the chief groups of these great alliances being studied in considerable detail.

8. **Morphology and Physiology of Economic Grasses.** Spring term. Lectures and laboratory work. This course contemplates a detailed study of the



CATALPA ON CAMPUS.

cereals and other economic grasses; their history, distribution, structure, and habits.

9. **Ecology.** Fall term. This course involves the study of the reactions of plants to their environment in their associative relations as plant societies. Problems of ecological and geographical distribution will be considered, and as far as possible the work will be made individual, each student being directed into some special ecological question as early as possible. Lectures and conferences will furnish general guidance, and special reading will be assigned. The work proper will be strictly in the field.

10. **Plant Histology.** Spring term. This is a course in laboratory methods, involving a study of the processes of killing, fixing and preserving plant tissue; dehydrating, embedding in paraffin and celloidin; microtome sectioning; staining and mounting of slides. A varied series of preparations will be worked upon, with a view to the acquisition of facility in technique and in the preparation of material for research.

MEANS OF ILLUSTRATION.

A general herbarium, consisting of a large collection of plants of the United States and other countries; a Kansas herbarium, containing specimens illustrating the distribution and variation of plants throughout the state; a twig herbarium, illustrating woody plants in their winter condition; and a seed herbarium, containing a representative collection of seeds and fruits, amounting, all together, to about 70,000 specimens; also thirty-eight compound microscopes, seven dissecting microscopes, tools, reagents, etc. The department is provided with a zinc culture room, and the ordinary apparatus for bacteriology, and with Minot and Schanze microtomes, paraffin embedding ovens, and a complete equipment of glassware and stains for histological and cytological work.

Chemistry.

All of the industries are becoming more and more dependent for their highest success upon intelligent application of the sciences, and the special sciences are making their greatest progress by tracing their phenomena back to the physical and chemical changes that accompany them. A study of chemistry and physics is therefore essential to any understanding of the processes of nature or human industry. In the instruction in chemistry the aim is to insist upon a mastery of the chief concepts of the pure science through the agency of text-book drill, accompanied by demonstrations in the lecture-room, and experimental observations by the student himself in the laboratory. As the course proceeds, illustrations of chemical principles are drawn from the industrial processes of the chemical, agricultural, domestic and other arts, thus impressing the practical nature of the study. The ultimate object of the instruction is to develop in the student the power to form independent judgments upon the manifold problems of daily life in which chemistry plays a part.

Of the studies described below, Nos. 1 and 9 are required in all courses. In addition, the engineering courses require Nos. 4, 5, 12, and 13, and the agriculture, domestic science and general science courses Nos. 2, 3, 10, and 11. The domestic science course also requires No. 6, and the agriculture course Nos. 7, 8, and 14.

1. **Chemistry I.** Second year, fall term. This term's work is designed to give the student a knowledge of the fundamental principles of the science as illustrated by the chemistry of the non-metals and that of some of the metals.

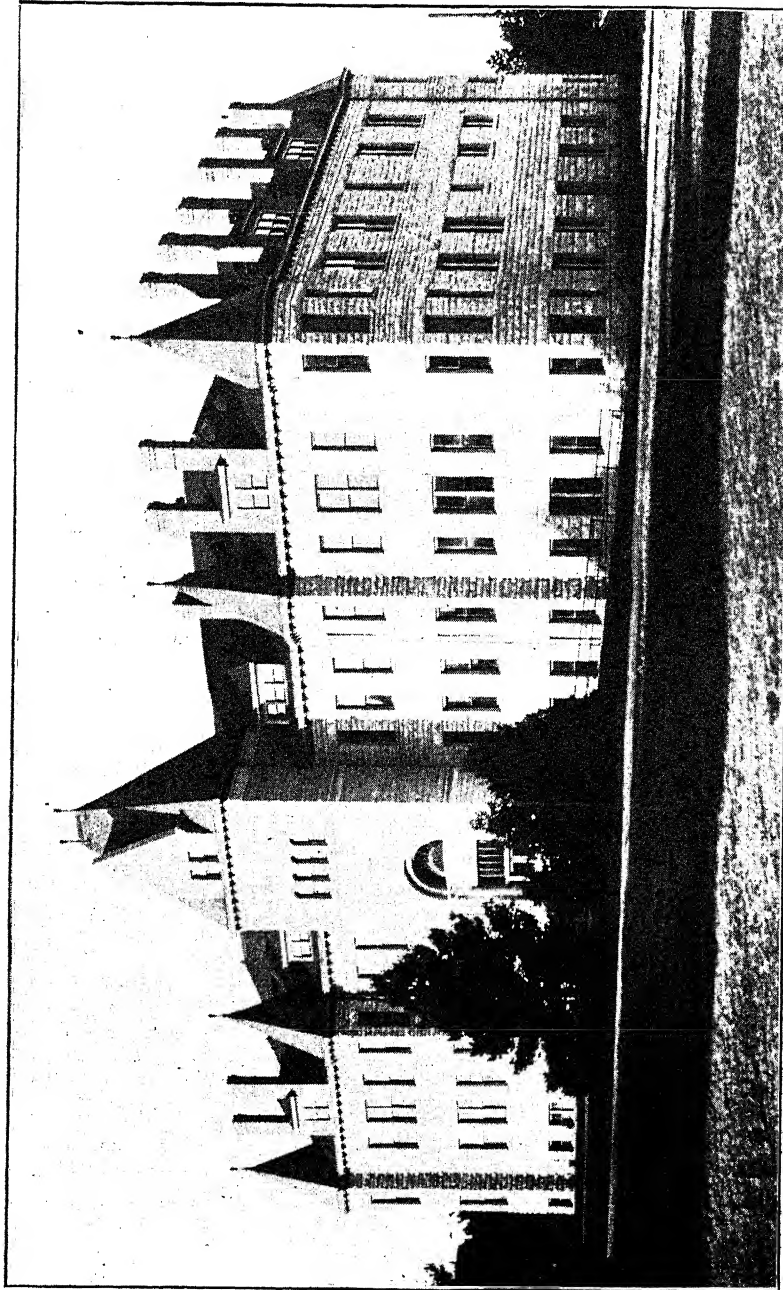
As all subsequent progress in this science requires a working knowledge of its principal theoretical conceptions and of the rules for naming compounds, the significance of formulæ, chemical equations, etc., much attention is given to these as well as to the practical uses of the substances and processes in metallurgy, engineering, agriculture, and other arts. The text-book, Newell's Descriptive Chemistry, is supplemented by lectures when necessary, and the subject is amply illustrated by experimental demonstrations. Elementary physics is a prerequisite.

2. Chemistry II. Second year, winter term. A systematic study is made of the simpler examples of the more important classes of organic compounds in their logical chemical relations. Such substances as touch the every-day affairs of life are treated with greater detail. Opportunity is thus afforded to consider the hydrocarbons, alcohols, organic acids, fats, soap, sugars, starch, proteids, and other less known substances. Compounds used for clothing, food, fuel, light, antiseptics, disinfectants, anesthetics, poisons, medicines, solvents, etc., are included. While the useful organic compounds have special attention given them, the study of others is not excluded when they contribute to an understanding of the systematic relations existing among the several classes. Any serious study of the biological sciences, or of the arts connected with them, must require this as a foundation. The subject is amply illustrated by experiments in the lecture-room. Text book, Remsen's Organic Chemistry, in part, accompanied by lectures amplifying the treatment of constituents of foods. Course 1 is a prerequisite.

3. Chemistry III. Second year, spring term. In this and the accompanying laboratory work, the prime object is to increase the student's knowledge of chemistry as a whole. The science is so difficult that with most students the one term of inorganic chemistry does not do more than introduce them to it. In chemistry III the standard methods of analytical chemistry are made the basis of a systematic study of the chemical properties of the most important metals, non-metals, acids, bases, and salts. The teaching of analysis as such is a secondary object, although the student is held to the exact observations and careful reasoning required in ascertaining the composition of single substances and mixtures. The lessons, which are outlined in a special pamphlet, include a review of the more important topics of inorganic chemistry, in which natural occurrence of elements and compounds, industrial chemical processes and analytical reactions are seen to be closely connected. The pamphlet also includes simple treatment of some general chemical laws, in accordance with modern views. The exercises are so arranged as to pass from the simple to the more difficult, and at the same time facilitate the comparative study of the several cations and anions. The theories of chemistry receive constant application, and the effect of the course is to broaden, strengthen and unify the student's ideas of general chemistry, greatly to enlarge his knowledge of chemical facts, and at the same time fix many of them by their association with the reactions made use of in analytical chemistry. Must be preceded by courses 1, 9, and 10.

4. Chemistry IV. Second year, winter term. In this course engineering students give special attention to the metals used in construction and other engineering operations, and to compounds of metals of engineering significance. This course completes Newell's Descriptive Chemistry and includes a series of lectures on alloys, materials of construction, etc. Must be preceded by course 1.

5. Chemistry V. Second year, spring term. The work given in this course is similar to that of chemistry III, but adapted, as far as may be, to the needs of engineering students. Must be preceded by courses 4 and 12, and accompany 13.



PHYSICAL SCIENCE HALL.

6. **Human Nutrition.** Third year, fall term. This is a course of lectures on the chemistry of foods and nutrition, and includes the following topics, with others: Composition of the animal body; composition of foods and methods of investigation employed in their study; the changes that the several classes of foods undergo in cooking and digestion, and the functions that they perform in nutrition; daily food requirements, and the balancing of dietaries; food economy. Course 2 and physiology must precede this course.

7. **Animal Nutrition.** Third year, fall term. This course is designed to provide a thorough scientific basis for the study of practical stock-feeding. It is a study of the relation of the animal body to matter and energy, and includes consideration of the methods of investigation employed, and of the following topics, with others: The chemical characteristics of the more important feeding stuffs and causes of their variation in composition; the chemical changes that feeds undergo in digestion; the tissues that can be built up by the several proximate principles of feeds, and the bodily functions that they can sustain; hence, the requirements of the animal as modified by the purpose for which it is fed; the channels through which the energy of feed is lost or is utilized. Lectures and parts I and II of Henry's "Feeds and Feeding." Course 2 and physiology must precede this.

8. **Agricultural Chemistry:** Third year, spring term. Among the subjects treated are: The soil-making rocks and minerals, and the agencies by which soils are formed from them and other materials; the soil requirements of different crops; the sources of soil fertility, and means of conserving it; the general relations of plants to earth, air, and water. Text-book, Snyder's Soils and Fertilizers. This is supplemented by lectures. Courses 3 and 4 must precede this.

9. **Chemical Laboratory I.** Second year, fall term. This course accompanies chemistry I. As far as time permits, the student performs, independently, experiments touching the preparation and properties of the more important inorganic substances. Preference is given to those operations which illustrate important principles, and the student is required as far as possible to study experiments in that light. In this, as in all other laboratory work in chemistry, the objects are, to illustrate chemical phenomena, and to teach care in manipulation, attentive observation, logical deduction, and discrimination and accuracy in recording results and conclusions. The student is not only required to give the designated amount of time, but at least a minimum amount of work must be satisfactorily performed in order to obtain credit.

10. **Chemical Laboratory II.** Second year, winter term. This includes blowpipe analysis of the more prominent species of minerals, especially those of common occurrence and economic importance in agriculture and engineering. Must be preceded by 9.

11. **Chemical Laboratory III.** Second year, spring term. This accompanies chemistry III. The regular methods of qualitative analysis serve as a basis for a laboratory study of the chemical properties of substances. At first simple known salts are given the student; later, unknown substances, simple and complex, soluble and insoluble. Course 10 is a prerequisite.

12 and 13. **Chemical Laboratory IV and V.** Second year, winter and spring terms. These courses for engineering students are similar to chemical laboratory II and III in general scope, but work in analysis of flue gases and determination of the calorific value of fuels is included also. The exercises throughout are adapted to the special needs of the student for whom they are designed. Course 9 must precede these.

14. **Agricultural Chemistry Laboratory.** Third year, winter term. Six hours per week are given to laboratory work, which consists of simple quantitative exercises, as far as possible upon substances of direct agricultural interest. These are so planned as to give as great variety of training as possible in the limited time available. Prerequisite, course 11.

MORE ADVANCED COURSES.

Advanced work in chemistry is offered in graduate courses and as electives in the general science course. Classes requiring lectures and recitations will not be organized for less than three students.

15. **Inorganic Chemistry.** Fall and winter terms. This course is a thorough study of one of the larger text-books, such as Richter's or Newth's, accompanied by a special course of laboratory work.

16. **Organic Chemistry.** Spring term. This course includes laboratory work, and the study of a text-book adapted to the advancement of the students. When sufficient demand exists it will be extended to two terms.

17. **Chemistry of Foods.** This course is designated for graduate students taking domestic science, and extends through a year. It consists of study of the literature treating of food and nutrition from a chemical standpoint, accompanied by laboratory work in the separation and study of the constituents of foods, drinks, and condiments. This course may be extended to almost any extent, and leads naturally to the quantitative analysis of foods.

18. **Quantitative Analysis.** This may be taken at any time after completing course 3. After the necessary preliminary training, the student may give special attention to any line of quantitative analysis, such as that of foods and fodders, soils and fertilizers, ores, water, gases, etc. The investigation of special chemical questions is encouraged.

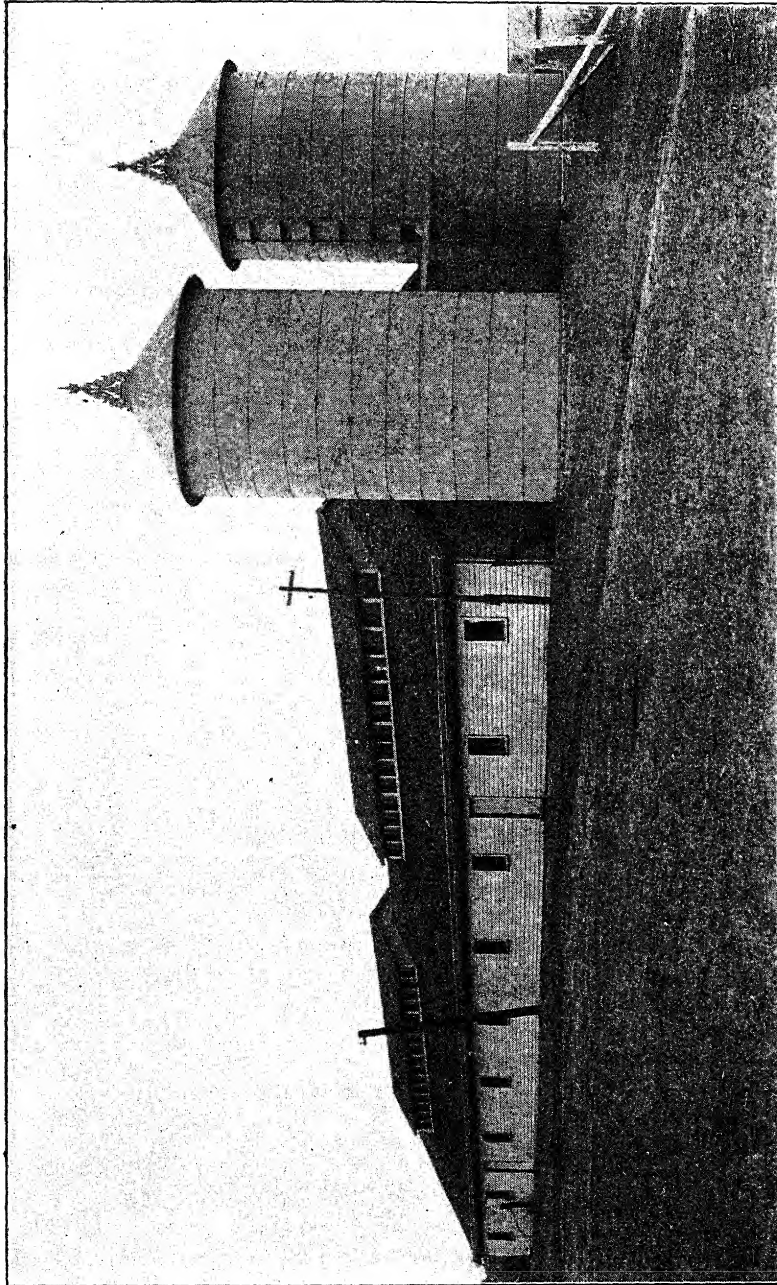
19. **Historical and Theoretical Chemistry.** This course may be arranged for by students who have completed courses 15 and 16.

20. **Mineralogy.** Crystallography, the study of minerals and blowpipe analysis may be taken concurrently or separately.

21. **Journal Meeting.** Once a week throughout the year, the officers of the department, with the more advanced students and such others as wish to, meet for papers and discussions upon topics representing the progress of chemical science, chiefly as found in the current journals. The preparation of subjects for presentation at these meetings is a part of the required work of graduate students and of those electing courses 15 and 16.

MEANS OF ILLUSTRATION.

The lecture-rooms are provided with excellent facilities for demonstrations, and the laboratories have the necessary items of equipment, to which additions are constantly being made. The laboratories for the first year's work in chemistry will accommodate 138 students at one time, and the desks are so constructed that they may be used by an equal number working at another time. The laboratory for more advanced work provides places for forty-eight students. All of the laboratories are well supplied with draft hoods. Each student's place is provided with gas and water, and distilled water is piped to all of the laboratories. The collections include representative specimens of the most important ores and minerals, a set of natural crystals, a set of large crystal models, a collection of the minerals of the noted Stassfurth deposit, and chemical preparations illustrating subjects taught.



DAIRY BARN AND SILOS.

Dairy and Animal Husbandry.

In the dairy department instruction is given in the manufacture of dairy products, and everything connected with the management of a commercial creamery, cheese factory, sanitary milk plant, etc., in such a manner that the student can intelligently handle any problem that is likely to confront him in his work afterwards.

The instruction in animal husbandry is planned with a view of awakening and encouraging an intelligent interest in live stock, so that a student, when he sees an animal, will at once compare it with an ideal that he carries in his mind and note wherein it falls short.

The values of the different feeds and combinations of feeds are taught, so that the student will be able not only to combine feed stuffs to get the required nutrients, but to combine them in the most economical manner to produce desired quantity and quality of product.

The principles of breeding as related to the raising of farm animals are studied, so to enable the student to know how our improved breeds of live stock have been developed, and how animals of superior merit may not only be perpetuated but improved. This work includes practice in tracing out pedigrees.

The aim is to give the student such knowledge and skill as will enable him to return to the farm and select, feed and breed the best live stock it is possible for him to obtain, or if he has no farm of his own, opportunities are open for young men, after getting some experience, to work into positions as farm managers. Nos. 1, 2, 3 and 4 are required in the agriculture course.

1. **Dairying.** Second year, fall term. Milk—its secretion, nature, and composition; testing milk, cream, skim-milk, buttermilk, and whey; conditions influencing the quantity and quality of milk; handling of milk for butter and cheese; study of the various hand separators; the proper handling of cream and elementary butter-making.

Laboratory.—Practice in testing milk and its various products; detection of adulteration; tests for distinguishing oleomargarine and butter; testing accuracy of glassware; study of the various hand and power Babcock testers and cream separators. Practice in separating milk, pasteurizing, ripening and churning cream; different methods of testing the acidity of milk; rennet test; setting milk; curd cutting; salting, pressing and curing of cheese.

2. **Breeds of Stock.** Second year, winter term. A study of the characteristics of the various market and pure-bred classes of live stock; also the standard of excellence of the various breeds.

Stock Judging.—Practice in judging chickens, beef cattle, dairy cattle, hogs, horses and sheep according to the official standards.

3. **Stock-feeding.** Third year, spring term. Properties of feed stuffs; adaptation and combination of feeds to meet the needs of various classes of stock under varying conditions; practical economy in preparing rations for growth, milk, fattening, and maintenance; effects of feed on quality of product.

4. **Animal Breeding.** Fourth year, spring term. A study of the laws of heredity, atavism, variation and principles relating to fecundity, cross-breeding, in and-in breeding, etc. In addition, the various principles relating to the promotion of the breeding of pure-bred stock are made the subject of study and investigation.

ELECTIVES IN DAIRYING.

5. *Preparation and Marketing of Milk* embraces pasteurization, clarification, standardization; the general care, handling and marketing of milk; arrangements and appliances necessary to furnish to the consumer milk that has been prepared under the greatest sanitary conditions.

6. *Special Dairy Products* is a study of the various ways in which milk and its products are utilized in special purposes, such as the manufacture of ice-cream, condensed and modified milk, and the preparation of milk-sugar and casein, which are used as a basis of many of the commercial products.

7. *Advanced Butter-making* includes the receiving and separation of milk, turning of hand separators, cream preparation, perpetuation of starters, pasteurization and ripening of cream, and the determination and effect of the different per cents. of acidity in cream; churning, working, packing, marketing and scoring of butter.

8. *Dairy Management and Bookkeeping* embraces the construction of dairy building, the state of refrigeration and conditions to obtain the greatest possible degree of economy in dairy operation; practice in bookkeeping that will enable the student to understand the underlying principles, followed by a training in the keeping of dairy accounts.

9. *Cheese-making* consists in the manufacture of cheddar, cottage and cream cheese.

ELECTIVES IN ANIMAL HUSBANDRY.

10. *Origin of Breeds* is the study of the origin and development of all the various breeds and classes of domestic animals.

11. *Advanced Live-stock Judging* covers judging of horses, cattle, sheep, poultry, in groups similar to those at county and state fairs.

12. *Live-stock Management* includes the housing, care, management and marketing of the various classes of live stock.

13. *Animal Products* is the study of the methods of slaughtering animals, the cutting and curing of meats, and the utilization of animal waste products.

14. *The Study of the Pedigree* embraces the writing, recording and tracing of pedigrees of all breeds, and studying the rules and requirements of the various record associations.

15. *Advanced Feeding* is a review of all the recent experiments, a study of the introduction of new cereals and by-products for feeding purposes and of foreign methods of feeding.

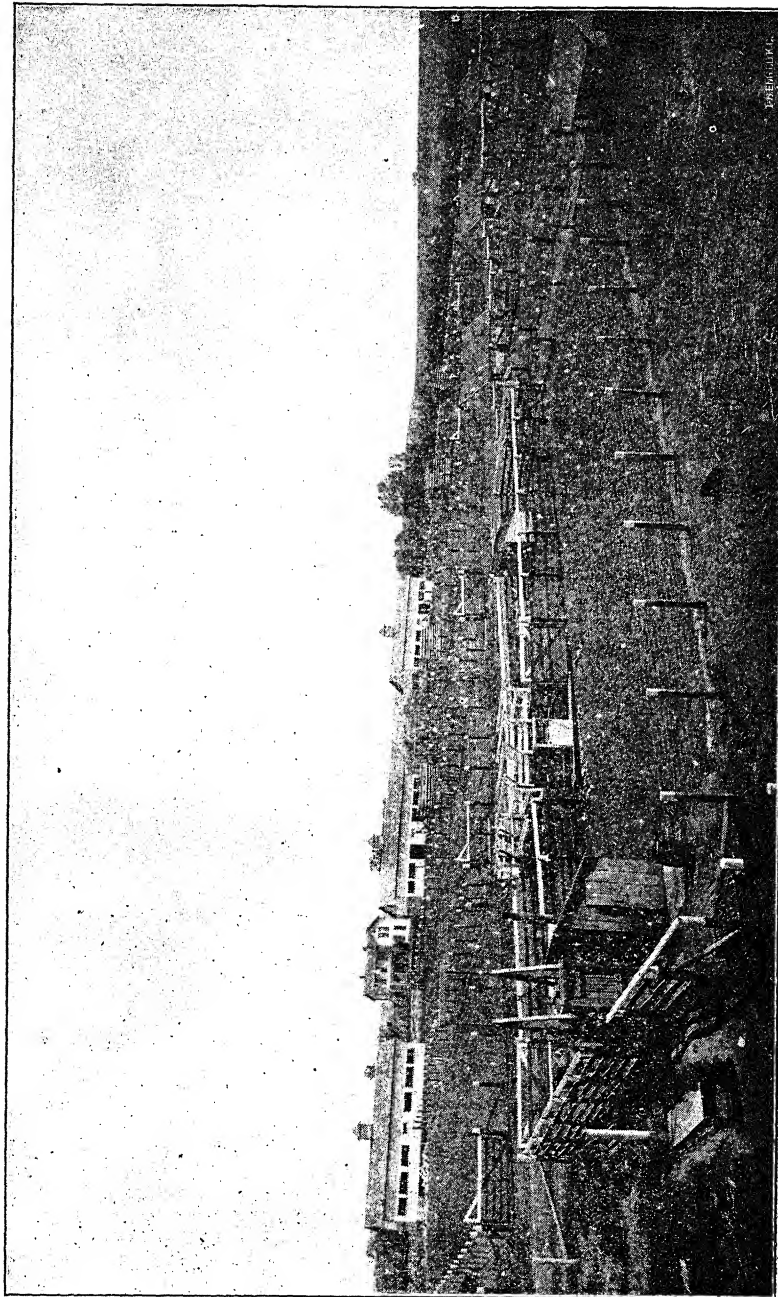
THE MEANS OF ILLUSTRATION.

The College herds have been selected with great care, and among them are found representatives of most of the leading breeds and classes of domestic animals.

Ten breeds of cattle are represented in the College herd: Aberdeen-Angus, Galloways, Herefords, and Shorthorns, representing the beef breeds; Ayrshires, Guernseys, Jerseys, and Holstein-Friesians, representing the dairy breeds; Polled Durham and the Red Polled, representing the dual-purpose breeds.

The College owns four pure-bred Percheron horses and several high grades, and, in addition, secures some of the best draft and driving horses in the state for judging purposes.

Five breeds of swine are represented, Poland-China, Berkshire, Duroc Jersey, Tamworth, and Yorkshire. Each breed is represented by a goodly number of fine animals.



EXPERIMENTAL FEEDING YARDS.

A number of breeds of sheep have been added to the live-stock equipment.

A few individuals of the leading breeds of poultry are owned by the College, and the fanciers of the state loan additional birds, if needed, for demonstration purposes.

The judging-room is 48 x 96 feet, is located in the large stone barn, at the north end of the College campus, and has a seating capacity of 350.

Domestic Art.

This department provides a systematic course in plain sewing and dress-making. The course of work in plain sewing is carefully graded, not only to insure a thorough knowledge of the subject, but to develop habits of order, accuracy, and self-reliance. Each pupil is required to keep a note-book, in which she records a description of the work accomplished. A written examination is held at the close of each term.

Of the studies described below, all young women are required to take Nos. 1, 2, and 3, and those in the domestic science course must take No. 4. Materials for No. 1 are furnished by the College, the pupil furnishing her own thread, thimbles, needles, etc. In Nos. 2, 3 and 4 the pupil furnishes her own materials and makes the garments.

1. **Sewing I.** First year, fall term. The pupil makes a book of models covering the full course in hand sewing, consisting of basting, hemming, overhanding, gathering, darning, patching, etc. Lectures are given upon the use of each model.

2. **Sewing II.** First year, winter term. Care and use of sewing-machine. Machine practice. Discussion of appropriate materials and trimming for undergarments. Drafting, cutting and making underskirt and drawers.

3. **Sewing III.** First year, spring term. Drafting, fitting and making dress without lining.

4. **Dressmaking and Fabrics.** Second year, winter term. Nos. 1, 2 and 3 are a prerequisite for this course. The use of a dress-cutting system is taught, and each pupil will be required to draft, cut and make a woolen dress. Discussion of appropriate and hygienic dress. In connection with the dressmaking, the student will be given thorough instruction in fabrics and their manufacture.

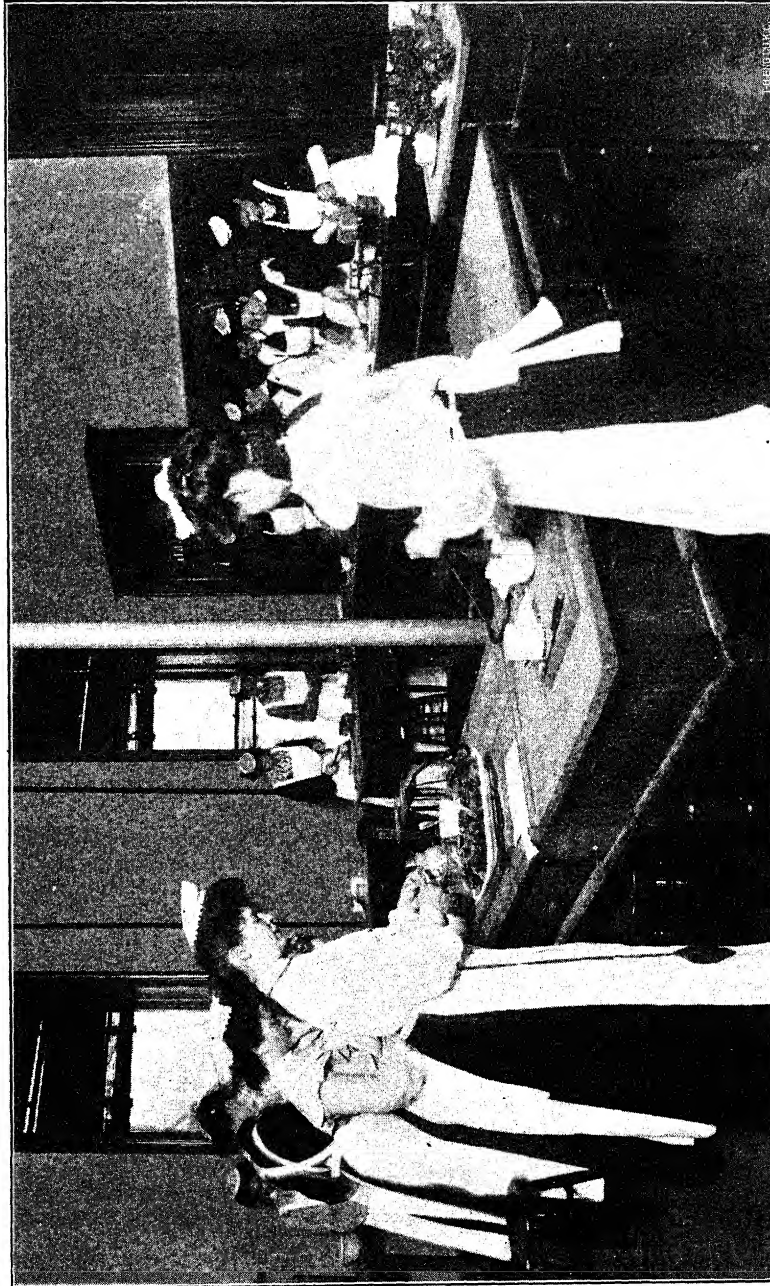
Domestic Science.

The object of the course in domestic science is to fit young women as homemakers and as capable women in whatever sphere their life-work may be. Such, then, as tends to cultivate correct observation, accurate reasoning, generous judgment and an appreciation for the beautiful in nature and art may rightfully find a place in such a course.

That which most especially pertains to woman's province; the home, is dependent upon the sciences of chemistry, physiology, bacteriology, and hygiene, and direct applications of the principles of these sciences are made in the lessons in cookery, dietetics, home nursing, and household management.

Elementary cooking is required of all young women; the remaining courses are required of domestic science students, and may be elected by general science students.

1. **Elementary Cookery.** First year, winter term. The economic use of fuels; the proper management of stoves and ranges; the care of utensils; the cookery of vegetables, cereals, fruits, milk, eggs, and meat, together with a few lessons in bread baking and cake and pastry making are taught.



CLASS IN COOKING.

2. **Laundering.** Third year, fall term. The scientific principles involved in laundering are taught, including the use of soaps, washing fluids, and starch, and the removal of stains.

3. **Home Nursing.** Third year, spring term. The course covers the furnishing and care of sick room, the giving of baths, administration of medicines, record of symptoms, first aid to the injured, and the intelligent use of antiseptics and disinfectants. Bacteriology is a prerequisite. Week-Shaw Text-book of Nursing.

4. **Domestic Science I.** Third year, fall term. The first half-term is given to food preservation—cold storage, sterilization, drying, and use of various chemicals. During the last half-term the study of foods in general is taken up, special stress being laid on the carbohydrates. Text-book, Miss Hill's Practical Cooking and Serving.

Laboratory.—Practice in canning, pickling and preparation of fruit juices first half-term. Last half, work is given in the preparation of vegetables, cereals, and dishes in which starch or sugar largely predominates. Must be preceded by courses 1, 2, and 3 in chemistry, and preceded or accompanied by human nutrition.

5. **Domestic Science II.** Third year, winter term. This is a continuation of course 4, and the time is devoted to the sources, composition, properties and comparative cost of nitrogenous foods. Text book, same as in course 4.

Laboratory.—Practice is given in the cookery of milk, cheese, eggs, meats, and legumes, separately and in combinations. Extended work is given with meats and breads. Practice in preparation and serving of dinners is given.

6. **Domestic Science III.** Third year, spring term. Fats and oils are studied and the economical purchase of food supplies discussed. Text-book same as in course 4.

Laboratory.—Practice work is given in pastry- and salad-making, and in the preparation of frozen dishes. The making of menus, with purchase and preparation of materials for breakfasts, luncheons, and dinners, occupies considerable of the time.

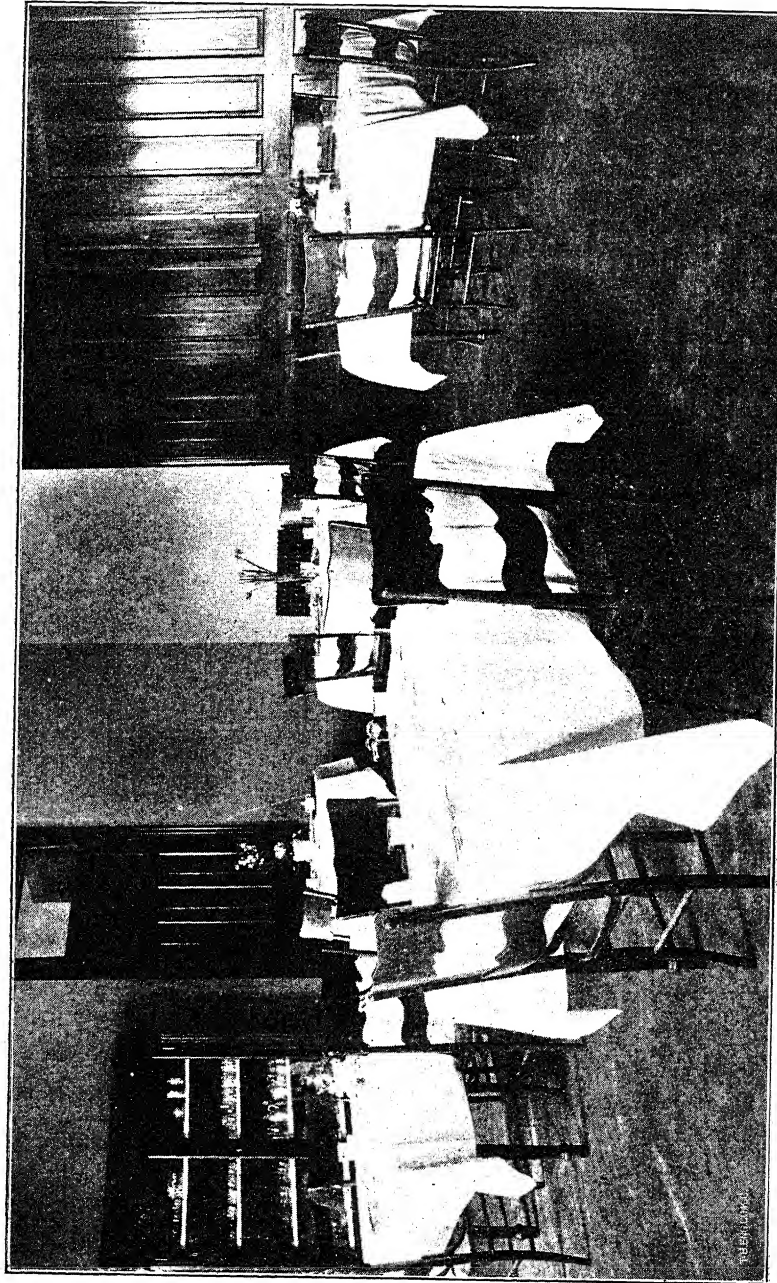
7. **Household Management.** Fourth year, fall term. Sanitary construction and care of the house; sanitary, economical and artistic household furnishings; judicious expenditure of incomes; and the keeping of household accounts, are the topics treated. Lectures given and reference work required.

8. **Dietetics.** Fourth year, winter term. The balanced dietary, nutritive and dietetic values of various foods, and the agreeable and hygienic combinations are taught. Text-books: Hutchison's Foods and Dietetics; Hill's Practical Cooking and Serving.

Laboratory.—The more complicated dishes are prepared and course breakfasts, luncheons, dinners and teas are served. Excursions are made to the mills and markets.

9. **Therapeutic Cookery.** Fourth year, spring term. Abnormal conditions of digestion, assimilation, and metabolism; alterations of secretions and destruction of tissue due to germ diseases are studied, together with the diets adapted to the conditions and needs of the system. Special attention is given to the feeding of infants and small children.

Laboratory.—The practice work consists of the preparation of many and easily digested foods suitable for the sick and the arrangement of trays for invalids. Some demonstration lectures are given by the class. Text-books Hutchison's Foods and Dietetics; Farmer's Food and Cooking for the Sick and Convalescent.



DINING ROOM.

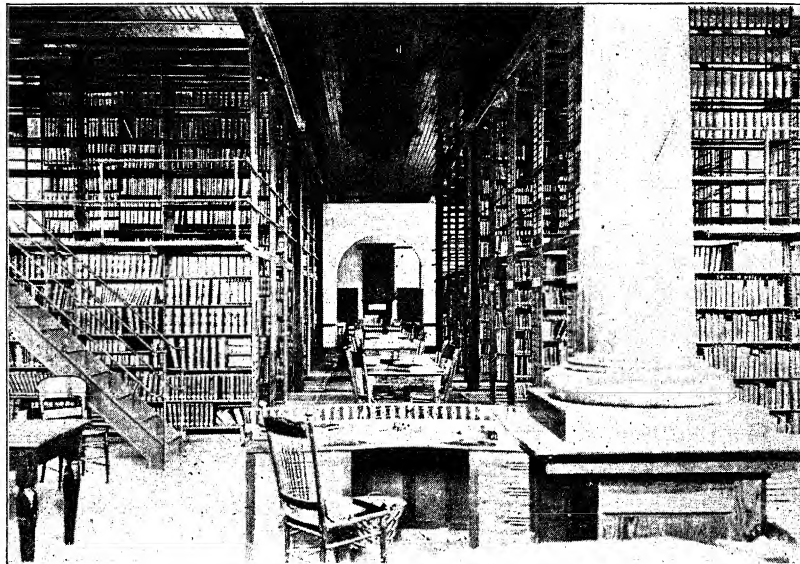
Economics.

The technical training which the state provides for young men and women is intended to be of social rather than individual advantage. It is assumed that the student who has been trained at the expense of the state will increase the productive capacity of the community in which he employs his skill, and thus advantage society as well as himself.

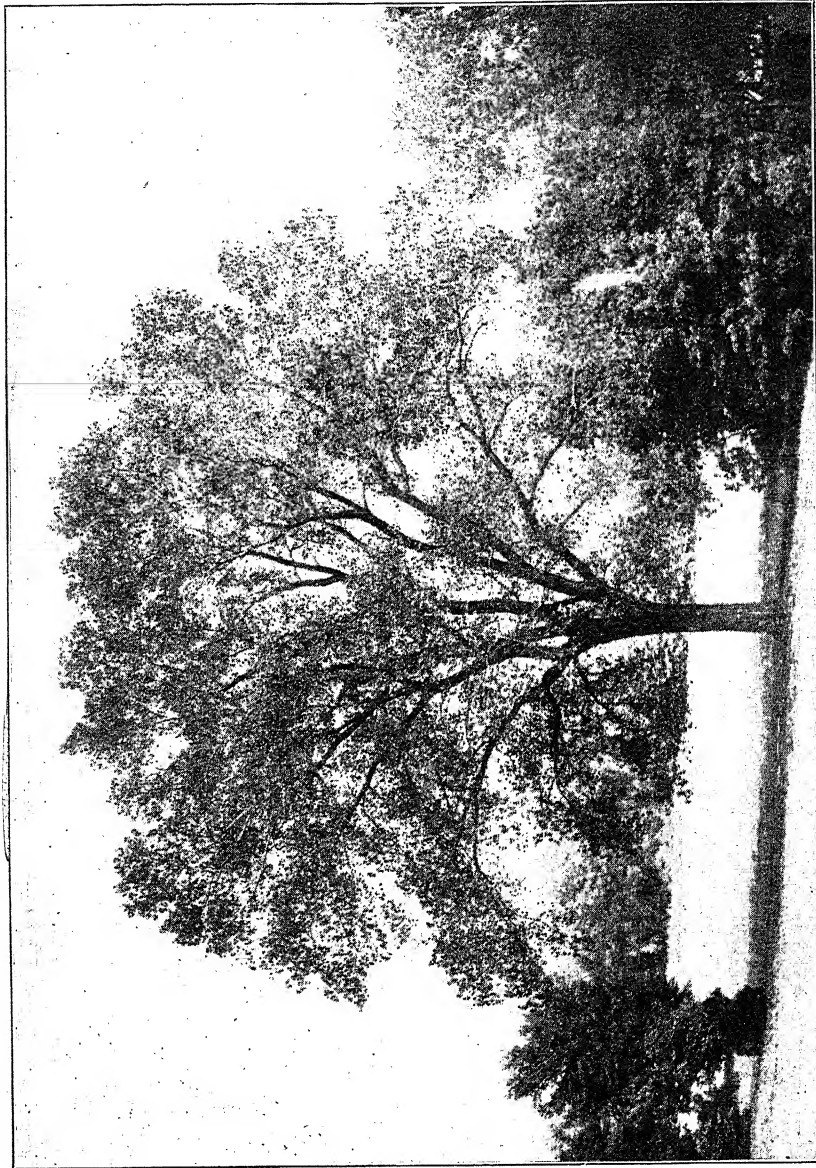
His whole obligation to society, however, is not discharged in this way. He owes something to the state as a citizen. As such he cannot escape the responsibility of contributing his share towards the solution of economic problems which grow out of the complex industrial system of which he is a part. To this end he should be familiar, at least, with the fundamental principles which underlie the production, exchange and distribution of wealth, and which enter so largely into the numerous economic problems that await popular solution.

It is the aim of this department, therefore, to emphasize the application of economic principles to industrial conditions. In doing this care is taken to avoid a dogmatic presentation of any subject. Students are encouraged to form habits of investigation and correct thinking before arriving at conclusions. The instruction given is by a combination of the text-book and lecture methods, which offers a means of escape from the narrowness and dogmatism that result from exclusive reliance on a text-book, and from the waste of time in imparting information by lectures only, when such could be acquired more surely and quickly from the printed page. A department library of well-selected books bearing on economics, sociology and statistics is at the disposal of students, and is used for collateral readings, book reviews, and reports.

A term's work in this subject is required in the senior year of all courses. Text used, Seager's Introduction to Economics.



BOOK ROOM.



COTTONWOOD ON CAMPUS.

English Language and Literature.

As its name implies, the work of this department is twofold: on the one hand it deals with the derivation, nature and especially the effective use of our mother tongue in practical discourse; on the other, it studies the literature of the English-speaking world, as exemplified by the master writers at different periods of our literary development. Thus, the attention of the department is devoted to the study of rhetoric and to the study of literature.

The aim of the instruction in rhetoric is to give a thorough and systematic training in the principles and practice of English composition. The most common errors to which inexperienced writers are subject are pointed out and criticized. The elements of style are studied from a text-book, discussed in daily recitations, and applied practically in the writing of paragraphs, themes, and essays. Attention is given to methods of finding, selecting and arranging material and to the application of these methods in the various types of discourse.

In literature, the instruction seeks to give the student an understanding of the nature and characteristics of literature in its leading forms, to develop in him a taste for the best literature and enthusiasm for literary study, to impart to him right methods, to train him in the ability to judge with confidence the literary qualities of any given work, and, through sympathetic study of masterpieces, to give him some knowledge of the leading authors.

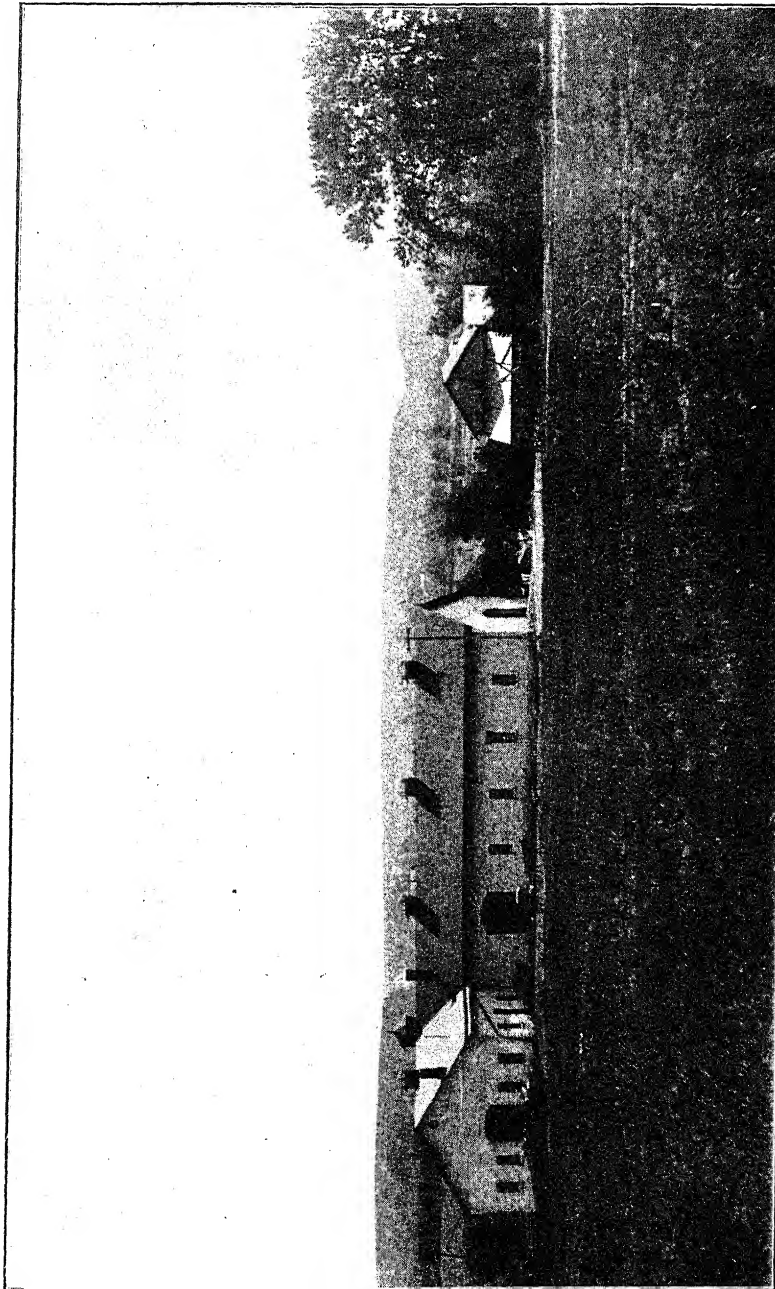
In most of the courses the work is pursued by a combination of lectures, classroom study, and seminary investigation. The literature is read at first hand and the student is required to do for himself, by way of interpretation, as much as possible. The extensive and intensive methods are combined: wide reading, to get literary atmosphere and breadth of view; critical study, to develop accuracy and insight. While historical conditions are not neglected, the weight of emphasis is placed upon the permanent qualities of literature as an artistic expression of life. To know what some one has said about a great author is deemed to be of less importance than what a great author has said for himself.

Students who present acceptable evidence of having satisfactorily studied the works now generally prescribed for admission to American colleges and universities, or the equivalent of those works, may receive credit for the course in English readings given in our preparatory year and for the course in English classics given in the first year. The works prescribed are divided into two groups—one for intelligent reading and one for careful study. The lists for the next two years are as follows:

I. FOR READING: Shakspeare's *The Merchant of Venice* and *Julius Caesar*, the *Sir Roger de Coverley Papers*, Goldsmith's *The Vicar of Wakefield*, Coleridge's *The Ancient Mariner*, Scott's *Ivanhoe*, Carlyle's *Essay on Burns*, Tennyson's *The Princess*, Lowell's *The Vision of Sir Launfal*, George Eliot's *Silas Marner*.

II. FOR CAREFUL STUDY: Shakspeare's *Macbeth*, Milton's *Comus*, *L'Allegro*, and *Il Penseroso*, Burke's *Speech on Conciliation with America*, Macaulay's *Essays on Milton and Addison*.

The examination for credit in English readings will usually consist of writing a paragraph or two on each of the several topics drawn from group I of the above list, or from the list given on page 106 of the catalogue, under the heading "English Readings." The treatment of the topics will be designed to show a general knowledge of the books read, and especially to test the candidate's power of clear and accurate expression. For credit in English classics the examination



THE COLLEGE BARNS.

will be upon the subject-matter, form, and structure, and presupposes a thorough study of the books in group II above or in course 1 below. Especial attention is called to the fact that candidates are thus left free to offer for credit either the books in the lists named or to substitute others of equivalent literary value.

Each applicant for admission is advised to present from his instructor a detailed statement of the books read, the time covered by any course, and the grades attained, together with any exercise book he may have containing compositions or other written work done in connection with his studies in English.

What other credits in preparatory or freshman English shall be given will be determined partly by the examinations described above and partly by other evidence the candidate may give that he understands the essential of grammar and has a practical knowledge of the elements of composition. The aim will be to assign each student to that course which he is prepared to pursue with greatest profit.

All applications for credit in English should be presented at the beginning of the first term of attendance.

Of the studies described below, Nos. 1, 2, 3 and 4 are required in all courses; No. 5 is required in the agriculture and engineering courses; Nos. 6 and 7 are required in the domestic science and general science courses.

1. **English Classics.** First year, fall term. A careful study is made of a number of standard authors, English and American, of first-class interest and easy style. As far as possible, the selections are read and discussed in class. Character sketches, paraphrases, abstracts, outlines, and analyses, as well as biographical sketches of the authors, are regularly required. The students are given continual opportunity for studying and rendering the best thought in the best forms, and are at the same time encouraged to develop their own thought and powers of expression. The aim of the course is to afford practice in composition as well as a knowledge of the selections read.

Class Readings.—Shakspeare's Merchant of Venice; Milton's Minor Poems; Pope's Homer's Iliad; Coleridge's Ancient Mariner; Scott's Ivanhoe; Tennyson's Princess; Cooper's Last of the Mohicans; Lowell's Vision of Sir Launfal.

2. **Advanced Composition.** First year, winter term. The work in this course is a continuation and extension of that begun in composition. Especial attention is given to precision in the choice of words, to correctness in the various forms of sentence structure, and to unity and coherence in both the sentence and paragraph. Constant practice is given in writing paragraphs and in the preparation of brief essays on familiar themes.

3. **Rhetoric I.** First year, spring term. A continuation of course 2. Further practice is given in paragraph writing. Description, narration and exposition are studied as distinct types of discourse, with constant practice in making outlines and writing themes illustrative of these types. So far as possible the student is trained in the habit of criticizing his own work.

4. **Rhetoric II.** Third year, fall, winter or spring term. Study of style and invention. Rhetorical analysis of masterpieces. Lectures on oratorical composition. Practice in the making and criticism of plans for argument and orations. Essays in exposition, argumentation, and persuasion, and briefs for debate.

5. **English Literature.** Fourth year, winter or spring term. A brief survey of the rise and development of English literature, with library study of typical authors. Lectures: The nature of literature; the nature of poetry; the periods of English literature. Class study and interpretation of masterpieces.

6. English Literature I. Fourth year, fall or winter term. The history of the English language and literature. Lectures: What is literature? What is poetry? Elements of literary criticism; the beginnings of fiction; nature of the drama; the plays of Shakspeare; the age of Scott, Burns, and Wordsworth; Tennyson and his relation to his age. The study of Shakspeare, Thackeray and other great writers out of class, with reports and discussions. Classroom study and interpretation of masterpieces.

7. English Literature II. Fourth year, winter or spring term. A continuation of course 6. The study of Shakspeare, Shelley, Thackeray, Burns, Browning, and other writers. Elements of Shaksperian criticism.

ELECTIVE.

8. American Literature. Fourth year, spring term. A rapid survey of the rise and development of American authorship from colonial times to our own day. Study of the lives of representative men of letters. Seminary study of some of the great novels, essays, and longer poems. Classroom study and interpretation of some of the more difficult poems. Lectures.



LOVER'S LANE.

Entomology, Zoology, and Geology.

It is not necessary to enlarge upon the importance of the studies in this department either to the student seeking general culture or to the specialist in agricultural lines. The fundamental facts of zoology underlie all appreciation of the special studies peculiar to our institution in animal biology, and are moreover essential to an understanding of the true relation subsisting between man and the creatures under his influence; while those of geology show the application of many principles of physics and biology to commonly observed but otherwise little understood phenomena daily before every one. In courses of study framed to meet the needs of the young in an essentially agricultural community, where most have come from the farms, and most must return to them, a study of the minute but important insect friends and foes of the cultivator is not only desirable but essential. The study of insects, however, offers, in addition, especial opportunity for the development of habits of discriminating observation that will be of value in any walk of life.

Of the studies here outlined, Nos. 1, 3 and 4 are required in the agriculture and general science courses, Nos. 1 and 3 in the domestic science course.

1. **Entomology.** Second year, fall, winter or spring term. In the work of this term the intention is to give the student a basis for the intelligent appreciation of the important relations of the science to agriculture and horticulture. A brief view of structural types precedes an outline of insect classification, and a special study of the economic bearings of the subject completes the work. Illustrative material is furnished from the individual collections of the students and from the College museum. Charts, dissections and drawings from nature are used to illustrate points of value in classification. The pocket lens used in botany is required in this study. Text-book, Comstock's Manual for the Study of Insects, abridged.

2. **Advanced Entomology.** Fourth year, elective. Courses are offered in the following lines: (a) Review of the general subject, with the text-book, Comstock's Manual, extended. This study is desirable as preliminary to work in systematic or economic entomology. (b) Entomological methods, including field-work in observation and collection, laboratory work in preparation, dissection, and preservation, and in the study of life-histories, by the aid of the vivarium. (c) The independent and critical study of systematic entomology, the work in which may be restricted, when desired, to groups of special agricultural importance. (d) Economic entomology, so far as relates to the insects of field and garden, with a special study of methods of repression.

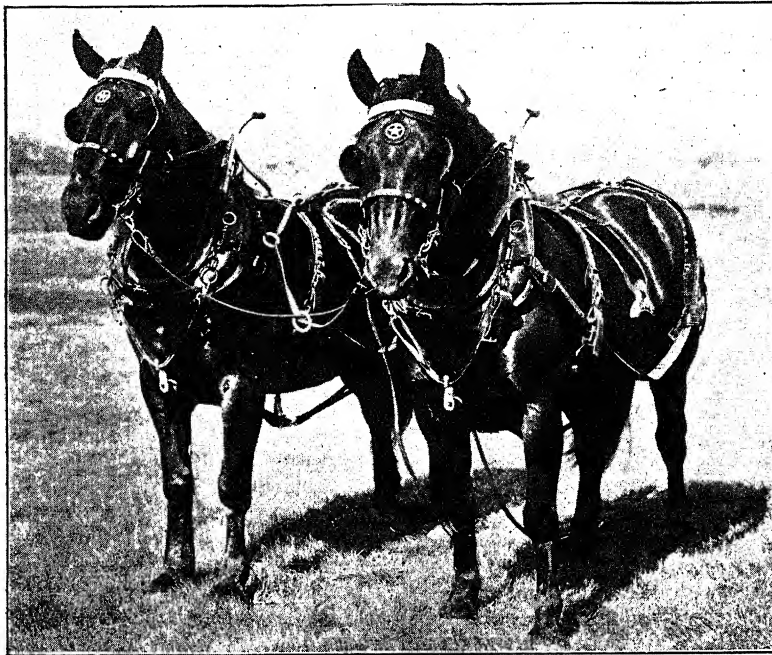
3. **Zoology.** Third year, winter or spring term; fourth year, fall term. This course is an introduction to the study of animals—their structure, functions, habits, origin, relationships, and classification. The student is first introduced to the simplest forms of animals, in which structure and functions are expressed in their simplest terms. From the consideration of these he passes in a natural manner to the study of higher and more complex forms, thus obtaining a knowledge of the gradual differentiation of structure and correlative specialization of functions so clearly illustrated by the study of types. Special attention is paid to animal ecology—*e. g.*, the relation of animals to their environment, effects of climate, soil, etc.; parasitism, commensalism, symbiosis; natural and artificial selection; the interdependence of species, and the caution which must be observed in interference with these natural relations. The course should be preceded by organic chemistry and physiology.

4. Geology. Fourth year, fall or winter term. in this study attention is chiefly given to the subject of physical geology, with a brief view of the argument and basis of the historical phase of the science.

MEANS OF ILLUSTRATION.

The illustrative collections embrace ample series of specimens, including the College collection of rocks, the stratigraphical collection, and the collection illustrating phenomenal geology, all from the Ward establishment; the educational collection, from the United States Geological Survey; and a valuable series of rocks and rock-forming minerals, from the National Museum. To these are added numerous specimens, especially from Kansas localities; and a small but increasing representation of characteristic fossils is also open to the student.

The zoological museum, containing numerous representatives of the several classes, especially full in fishes and mollusks of Kansas and in illustrations in economic and systematic entomology. Increasing material in skins, alcoholic and anatomical preparations is available also for the use of the student.



PERCHERON TEAM.

German.

In whatever line the modern student turns his energies a practical knowledge of German is very useful, often indispensable. In literature, the arts, and the sciences, much of the newest and best work appears in German, so that he who would keep abreast of the times is forced to acquire at least the rudiments of that language. It is planned to have the work in this department as practical as possible without, however, excluding the growth in the pupils of a love for literature. The tendency toward introducing German classics into second- or even first year courses is becoming too frequent, students who have "mastered" Faust are too often unable to make the most commonplace remarks in German or to read current German literature fluently.

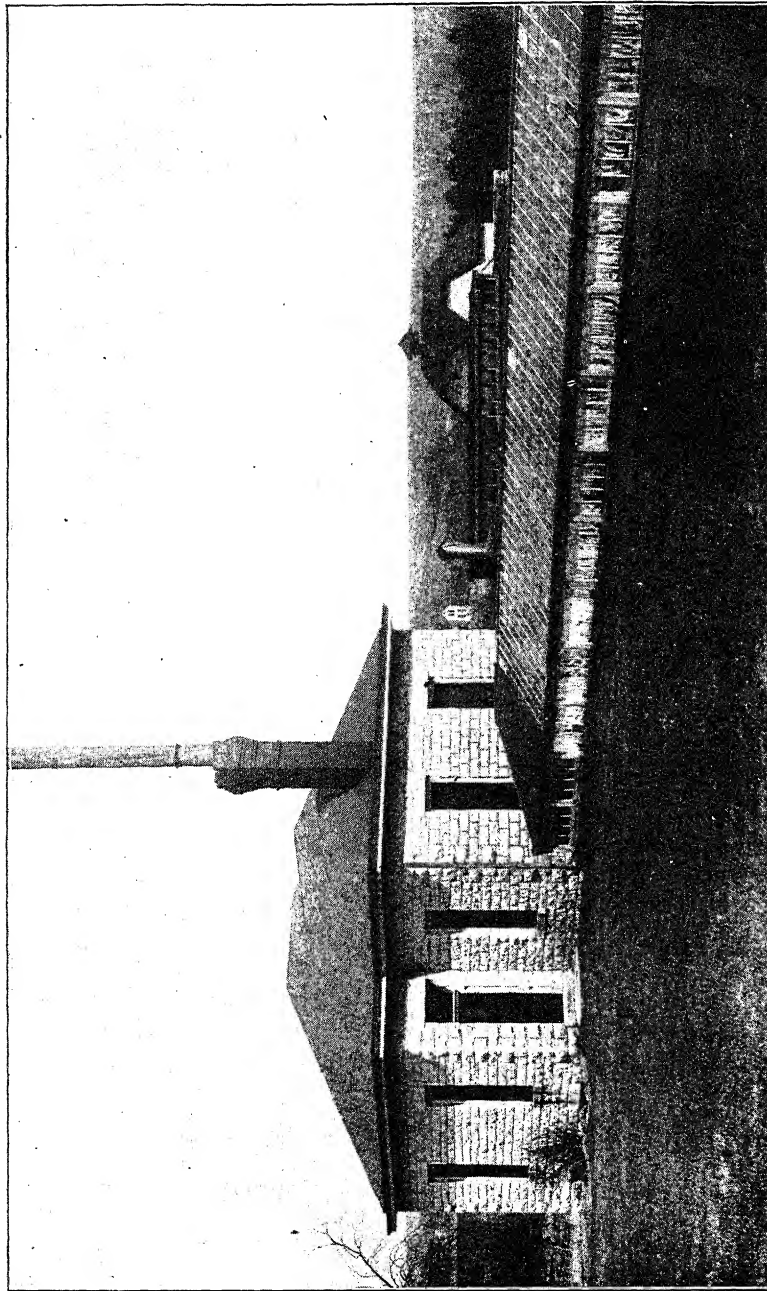
Of the work described below, Nos. 1, 2 and 3 are required in all courses except agriculture, where they may be taken as a fourth-year elective, and Nos. 4, 5 and 6 are required in the general science and domestic science courses. The work must be taken in the order here given, the only exception being German VI, which may be taken any time after German III.

1. **German I.** Second year, fall term. After two recitations given to learning the sounds of the German letters, the pupil at once begins reading. Vocabularies are learned from the start. Grammar is learned gradually, with the reading lessons, in such a way as not to discourage the pupil. Oral and written work, as also simple conversational exercises, begins with the first reading lesson. Strong, weak and mixed verbs; separable, inseparable and reflexive verbs; the indicative mood, active (except future perfect), present and imperfect tenses of the subjunctive active and of the indicative passive are studied. Inflection of personal pronouns, declension of strong and weak nouns, of the definite and indefinite articles, are learned. Twenty reading lessons, the same number of conversational exercises, and of translations of sets of English sentences into German and four sight-readings are taken up during the term. Text, Keller's First Year in German (first twenty lessons).

2. **German II.** Second year, winter term. Pupils are drilled on the grammatical points already gone over in German I. The remainder of the more important parts of the grammar are studied, the remaining tenses, both active and passive, the rest of the pronouns, mixed nouns, comparison of adjectives, etc. The same number of reading lessons, conversational exercises, translations of English into German and sight-readings as in German I are taken here. Text, Keller (lessons 21 to 40).

3. **German III.** Second year, spring term. More stress is laid on translations into good idiomatic English than heretofore, and the passages read are of increased length. There is oral work on each exercise read, and occasional translations into German. Such selections are read as will give something of an insight into German manners and customs. A few of the most popular songs are studied. Some of the chief treasures of German mythology and saga are taken up, as well as extracts from German history. Whenever a tendency to drag is noticed, one of the anecdotes given in the appendix will be read. Text, Müller and Wenkebach's Glück Auf.

4. **German IV.** Third year, fall term. The student begins with very simple scientific reading. The material read covers a wide range of subjects; among others, chemistry, physics, mechanics, geology, physiology, political economy, etc. Occasionally the exercise will be varied by translations into German. Text, Dippold's Scientific German Reader.



EXPERIMENT STATION BUILDING.

5. **German V.** Third year, winter term. The work is essentially the same as that of the fall term, but a much greater amount will be read. Text, Dipold's Scientific German Reader.

6. **German VI.** Third year, spring term. The classes now return to literary readings. The delightful and not too difficult extracts here taken deal with German peasant life. In addition, one number of some German newspaper will probably be read during the term. Text, Rosegger's Waldheimat.

History and Civics.

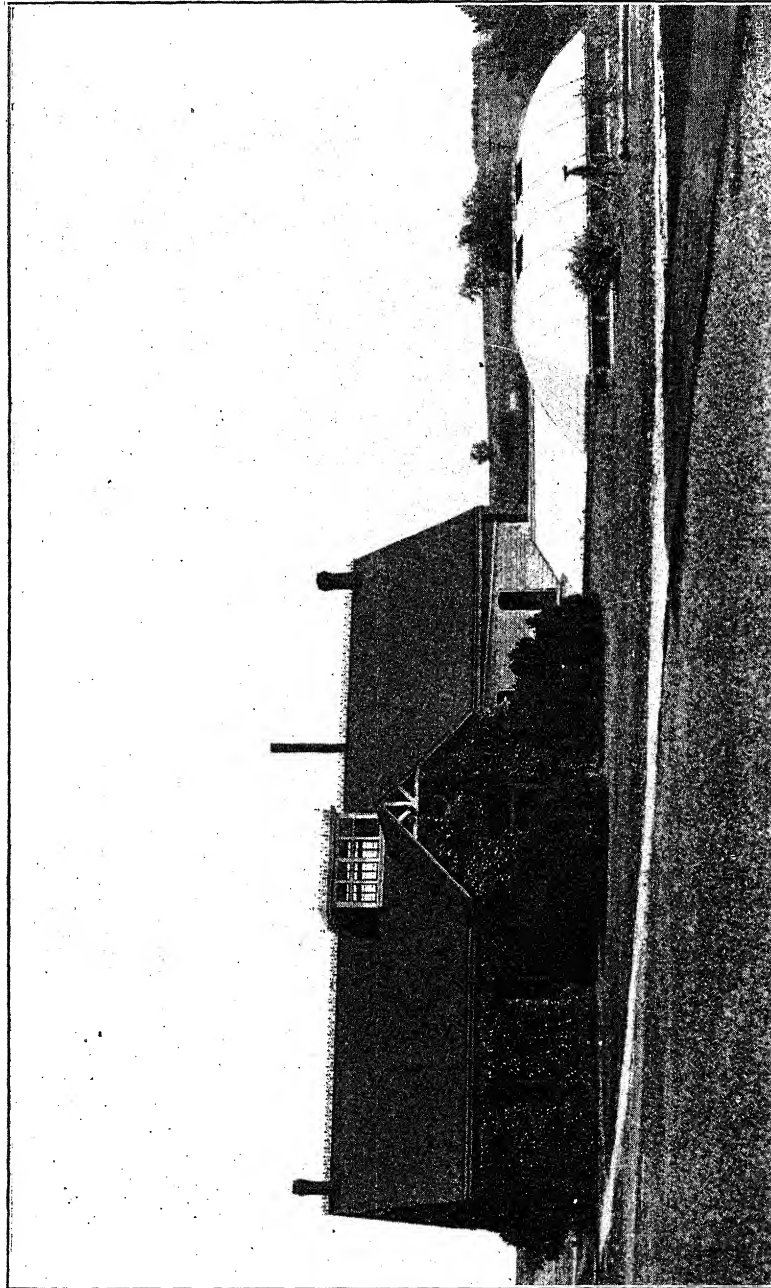
The department of history and civics offers three courses in the third and fourth years, arranged in consecutive terms and planned so as to make a logically continuous course. The modern European history includes the American history to 1776. Then the course in civics takes up the study of the articles of confederation and of the constitution. The third term is devoted to an advanced course in American history under the constitution. The constant aim is to make the work definite and practical, in keeping with the spirit of the school.

Nos. 1, 2 and 3 are required in all courses.

1. **European History.** This course covers the period since 1492. The following are among the subjects emphasized: The Protestant reformation and the later development in the history of the church; the thirty years' war, especially its causes and results; the second great series of wars between England and France, including the French and Indian wars, the American revolution, and the Napoleonic wars to 1815; the French revolution; the rise and fall of Spain; the growth of France and recent changes in her government; the creation of the German empire and of modern Italy; the heroic struggle of the Netherlands and the growth of Russia; the last century of European history, the chief facts in the present governments of the European nations, and their present international relations. Special attention is given to English history and her present government, for England's history includes that of her American colonies down to the war of American independence. Text book, Schwill's History of Modern Europe.

2. **Civics.** This course is introduced by a brief study of the government of the colonies; the English government and the causes of the American revolution, in so far as these help to explain our present constitution; a careful study of the articles of confederation and the government under them; the constitutional convention and the adoption of the constitution. The work of this term is chiefly devoted to a systematic study of our national constitution and of the actual government under that instrument. Constant comparison is made with our own state government. Current events and incidents from history are used to illustrate the various points until the every-day affairs of our government are made clear and familiar. Comparison with other governments, especially with that of England, is made wherever this seems helpful. Selected cases from the United States supreme court reports are studied. A few lectures are given on the principles of international law and of commercial law. Text-book, Andrews's New Manual of the Constitution. References: Boyd's Cases; Hart's Actual Government; Cooley's Constitutional Law; Story on the Constitution; Bryce's American Commonwealth; the national and state-statutes.

3. **American History.** This is an advanced course in the history of the United States under the constitution. The brevity of the course requires judicious selection of the points to be emphasized, and the following lines of our



HORTICULTURAL HALL AND GREENHOUSES.

national history are especially studied: The establishment of the nation and the organization and functions of the various departments of its government; the important presidential elections; Hamilton's financial measures, taxation, banks, internal improvements; history of political parties, their issues and their leaders; foreign relations and connecting links between Europe and America, as in the Monroe doctrine; the slavery question—compromises, the laws and the constitution; nullification and secession throughout our history; annexation and government of territories; national boundaries; the growth and development of the West, with a study of its influence on our national character and history; the early Kansas struggle; civil war, reconstruction, and the new nation. The whole course is a study of the practical application of our constitution in operation. Text-book, Channing's *Students' History of the United States*. Library work on selected topics.

Horticulture.

It is the object of the department to give such instruction and practice as will enable students to become acquainted with the general principles of plant culture and the practical applications of these principles. The work is planned to give them such knowledge of horticulture as will best help to increase the capacity of the student for the enjoyment of outdoor life and work with plants and to enable them to increase the comforts, beauties and profits of life on the farm.

No. 1 is required in the agriculture, domestic science and general science courses; Nos. 2 and 3 in the agriculture course; and No. 4 in the domestic science course.

1. **Horticulture.** Second year, winter or spring term; third year, fall term. The work of this term presents the principles of the art, introducing the facts underlying the methods of general practice in nursery, orchard and garden work. The text-book, Goff's *Principles of Plant Culture*, is supplemented by lectures which are intended to adapt the general principles to the particular conditions which the student is likely to meet. The planning and planting of windbreaks, groves, orchards, and gardens, with notes as to species and varieties adapted to various conditions, form the subject-matter of the lectures.

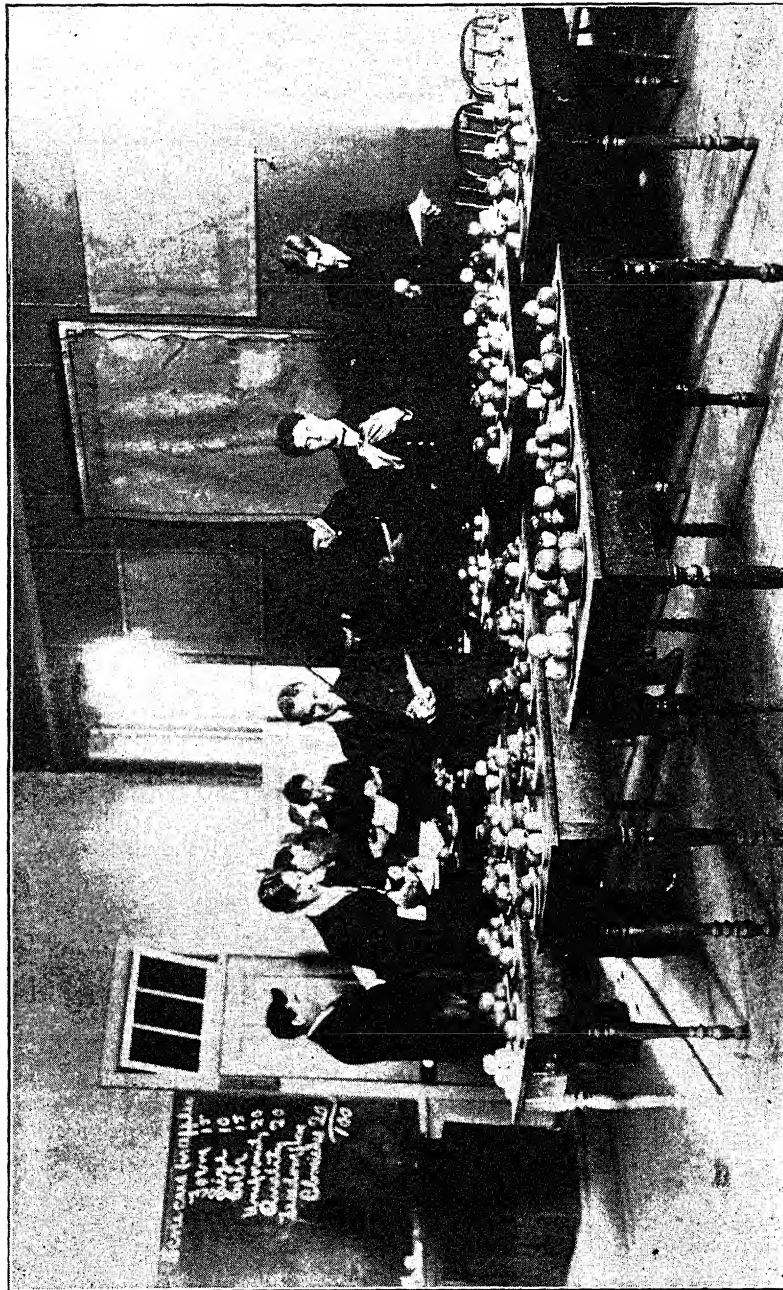
Laboratory.—This includes work in testing and planting seeds; the construction and care of cold-frames and hotbeds; spring pruning; setting trees and plants; the use of garden tools and spraying apparatus.

2. **Horticultural Laboratory.** Third year, fall term. The work consists of the fall work in pruning and protecting trees, shrubs, and vines; the collecting and handling of seeds, indoor methods of propagation, including the making and storing of grafts and cuttings.

3. **Vegetable-gardening.** Third year, spring term. The work of this term is given by lectures, and is devoted to methods of field operations, with special attention to seasonable practice, including the use of manures, the application of fungicides and insecticides, the means of securing and maintaining sanitary conditions, and a detailed study of varieties, with reference to their adaptation to local conditions.

4. **Floriculture.** Second year, winter term. This consists of laboratory work in propagating, potting and caring for plants, window gardening, seed-sowing, and transplanting seedlings. Opportunity is furnished the student to become familiar with the various window and greenhouse plants.

Students who choose their electives along horticultural lines are offered:



CLASS IN HORTICULTURE.

ELECTIVES.

5. **Pomology.** Fourth year, fall term. The work of this term comprises a careful study of the classification of fruits; a systematic study of varieties; the means of identification; their variation in plant and fruit under different conditions of soil and culture; and their botany and history. Waugh's Pomology is used as a text, and work with fruits is made a part of the course.

Forestry. Fourth year, winter term. The work of this term presents the general principles and methods of forestry, dealing with the relations of forests to public welfare, and the means of regulating and preserving forests. Gifford's Practical Forestry forms the basis of the term's work, supplemented by lectures upon tree-planting for the farm, care of wood-lots, windbreaks, post planting, etc.

7. **Ornamental Gardening.** Fourth year, spring term. The principles of this art are studied in relation to their application to the planning and planting of home grounds, streets, parks, and cemeteries. The value of the various trees, shrubs, annual and perennial herbaceous plants for securing desired effects are taken up in detail, with special reference to their use under differing climatic and soil conditions. Graduate students or those electing more than a single term's work in this subject study in fuller detail the foregoing topics and also the propagation, training and general culture of the various plants.

The increasing interest in the preservation and increase of forest areas has created a demand for more extended information concerning forest work and methods. The plantations of the College, standing as they do in different soils and situations, offer material for comparison with native growths. The nursery offers opportunity for experience and observation in methods of propagation and transplanting and the formation of new plantings.

Graduate students are offered the following:

8. **Dendrology.** Lectures. The characters of trees; their habits of growth as influenced by local conditions; distribution of the different species; special study of the native species; flower, leaf and seed characters; methods of propagation.

Laboratory.—Nursery practice; planting, thinning and pruning of plantations; pruning and care of shade and ornamental trees.

9. **Forest Technology.** Text, Boulger's Wood. Structure and growth of woods; their classification according to structure and economic uses.

Laboratory.—Gathering and storing of seeds; fall and winter planting; special treatment to insure germination, etc.

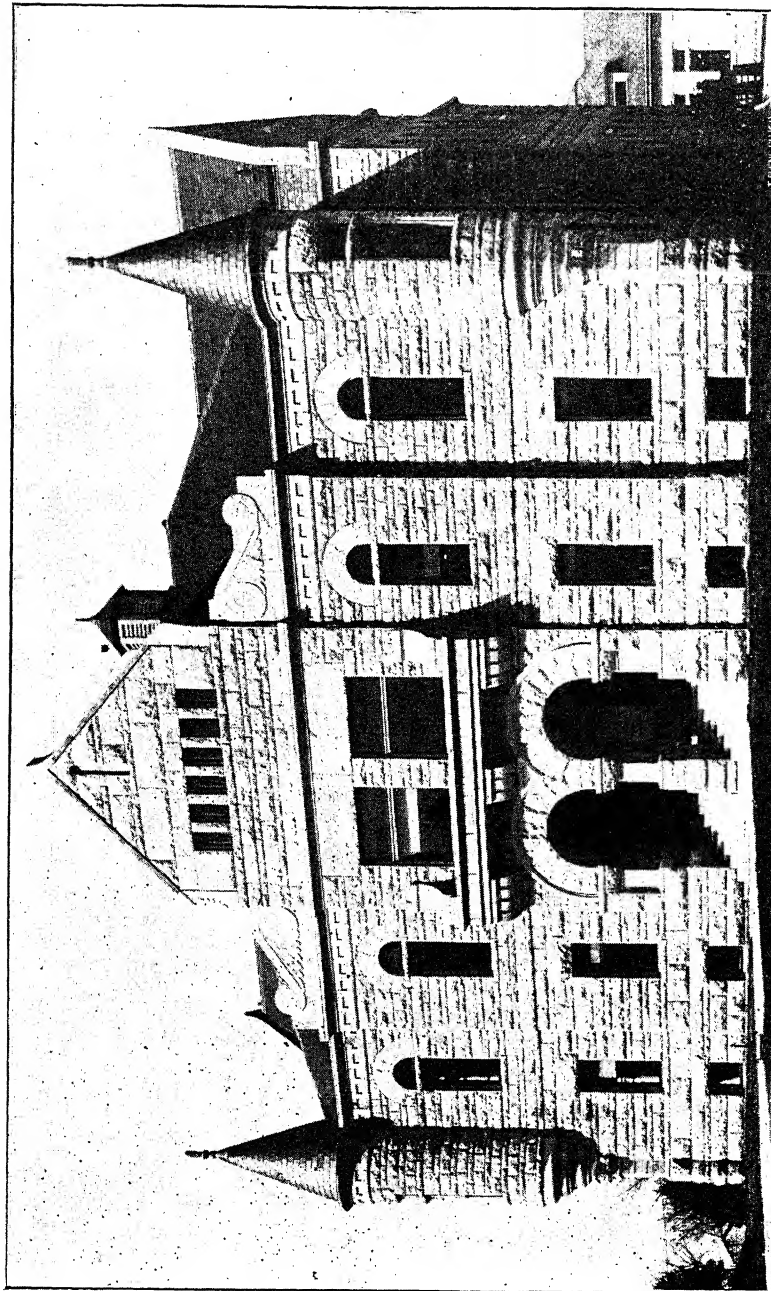
10. **Silviculture.** Lectures and references. Life-history, laws of growth and requirements of forests; forest characteristics; trees important in forestry and to farm plantings; relation of forestry to national economy.

Laboratory.—Forest mensuration. Determinations of volume, height, and stand, and the determination of the volume, height and stand increments. Stem analysis, valuation surveys, etc.

11. **Forest Management.** Plans and plantings of forests; their cultivation, care, and protection; plantings for definite purposes—to prevent erosion, protection from wind, to fix shifting sand, to regulate floods, for the utilization of worthless areas; harvesting, utilization, etc.

MEANS OF ILLUSTRATION.

Orchards comprising seventy five varieties of apples, forty of plums, thirty of peaches, fifteen of cherries; plantations of native fruits; small-fruit plantations containing many varieties; vineyards containing 175 varieties, and six forms of



AGRICULTURAL HALL.

trellises; a large collection in the arboretum and on the grounds of shrubs and timber, shade and ornamental trees; about thirty acres of forest plantings; fifteen acres of nursery and garden; a large collection of native and foreign plants in greenhouses; a collection containing 200 models of fruit; a grape herbarium containing leaves, canes, seeds and photographs of the fruit of 175 varieties of grapes; collections and specimens of woods; herbarium of fungous diseases, and numerous charts. The general library and the department library furnish ample opportunity for research work in various lines.

Mathematics.

It is the aim of the department of mathematics to give a thorough training in a small number of subjects, and to develop in the student the ability to attack new problems successfully rather than to burden his mind with a large number of facts and special methods. It is also characteristic of the methods of the department that an attempt is made to give the mathematical subjects a touch of human interest by directing the attention of the student to the historical development of these topics. The statement following contains a brief description of the courses to be given.

Nos. 1 to 8 are required in the engineering courses, and Nos. 9 and 10 in the mechanical and electrical courses, respectively; Nos. 1 to 5 in agriculture and general science courses, and Nos. 1 to 3 in domestic science.

1. **Geometry I.** First year, fall term. Text book, Gore. First, second and third books, with exercises for original demonstration.

2. **Geometry II.** First year, winter term. Continuation of course 1. Fourth, fifth, sixth, seventh and eighth books, treated as before, with special attention to original work.

3. **Algebra IV.** First year, spring term. Text-book, Wells's New Higher Algebra. Binomial theorem, undetermined coefficients, logarithms, and general theory of equations.

4. **Trigonometry.** Second year, fall term. Text book, Wentworth. Solution of plane triangles, essentials of goniometry, applications to surveying and navigation.

5. **Surveying.** Second year, fall term. Field-work two hours per week. Use and adjustment of instruments, chaining, leveling, and land surveying.

6. **Analytical Geometry.** Second year, spring term. Text-book, Wentworth. Rectangular and polar coordinates; the straight line, circle, parabola, ellipse, hyperbola, and the general equation of the second degree.

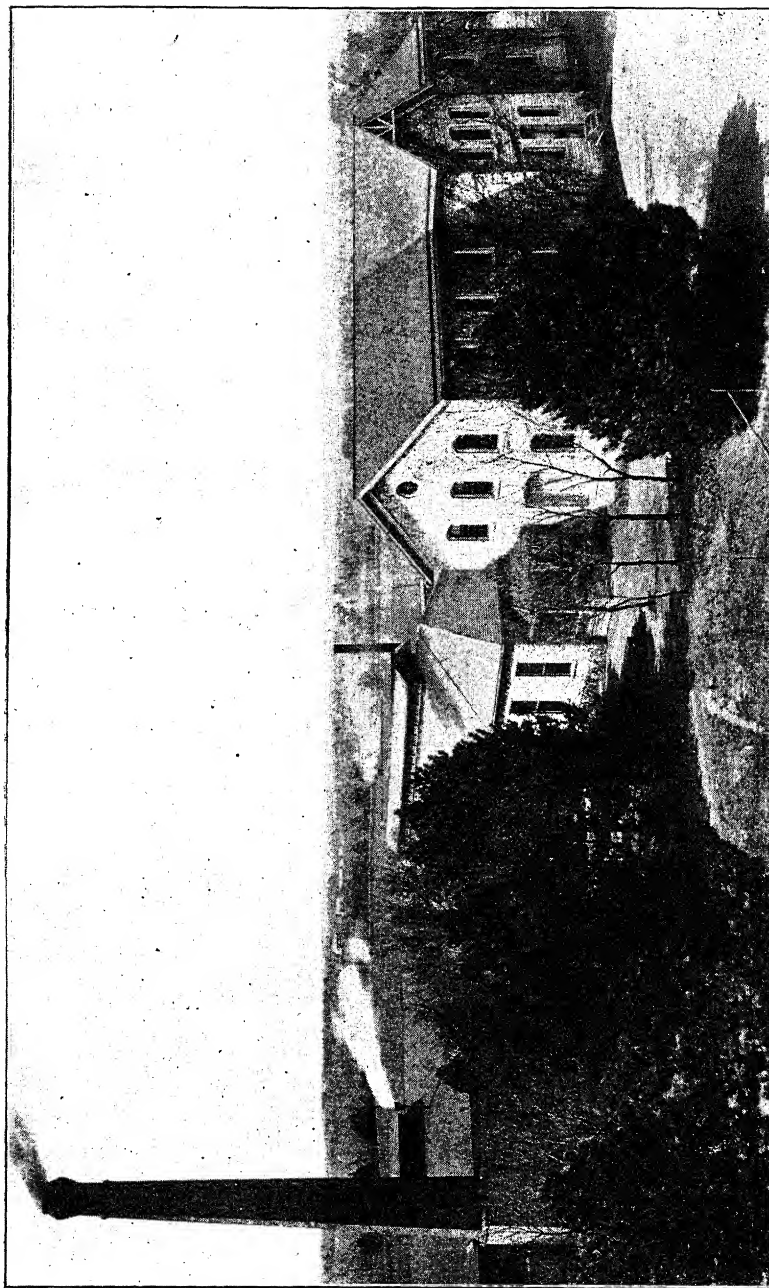
7. **Differential Calculus.** Third year, fall term. Text book, Osborne. The various methods of differentiation, with the usual applications.

8. **Integral Calculus.** Third year, winter term. Same text. Integrations, with applications to curves and surfaces.

9. **Definite Integrals.** Third year, spring term. Integration between limits. Lectures on the theory of the subject, with applications to practical problems.

10. **Differential Equations.** Third year, spring term. Lectures on the theory of the subject, with solution of examples of the various types.

In addition to the above, courses in theory of equations, advanced calculus, theory of functions or other branches of higher mathematics may be offered to graduate students, or to undergraduates who are able to carry extra work.



MECHANICS' HALL.

Mechanical Engineering.

The subjects in this course are adapted primarily to the needs of the students in mechanical engineering, but a few subjects are introduced to meet the requirements of the other courses. The subjects are so arranged that the student first learns the principles upon which the action of a mechanism depends in the classroom, and afterwards studies the action of the same mechanism in the laboratories and shops.

In the mechanical engineering course, all numbers below are required but 26 and 34

In the agriculture and general science courses, Nos. 1, 2 and 3 are required.

In the electrical engineering course, all the subjects in the first and second years are required. In the third and fourth years, Nos. 11, 12, 13, 14, 15, 16, 26, 29, 34, 35 and 37 are required.

1. **Woodwork I.** First year, fall term. A graded set of problems in joining is given, together with practice in working to dimensions, and the proper use and care of bench tools. Tools required: Two-foot pocket folding rule.

2. **Woodwork II.** First year, winter term. This work is a continuation of that given under woodwork I.

3. **Blacksmithing I.** First year, spring term. A graded set of problems designed to teach the operations of drawing, upsetting, welding, and forming, accompanied with instruction in the care of fires and the behavior of iron at different heats.

4. **Shop Lectures I.** Second year, fall term. Lectures of this term are on the structure and properties of the various structural materials. In all shop lecture courses the students are required to hand in from time to time well written notes on the subjects discussed in the lectures. These notes are to be written in ink in a book 8 x 10½, preferably one with loose leaves.

5. **Blacksmithing II.** Second year, fall term. Advanced work in the forging of iron and the manufacture of steel tools. Instruction is given in tempering, case-hardening, and annealing. Tools required: Two foot rule, one pair of five inch outside calipers.

6. **Kinematics of Machinery.** Second year, winter term. An elementary course in mechanisms, particularly the principles involved in the construction of gears, cams, and quick return motions. Preparation required: Trigonometry. Text book, Schwamb and Merrill's Treatise on Mechanism.

7. **Foundry.** Second year, winter term. Foundry practice is given in both floor and bench molding, including the making of cores, brass and iron castings, and the mixture of special alloys. Cupola practice and the making of machine castings for shop use are included.

8. **Shop Lectures II.** Second year, spring term. Lectures of the first half of this term are selected to accompany the work in pattern-making. The second half of the term is given to lectures on the construction, care and use of machine tools. Preparation required: Foundry and shop lectures I.

9. **Mechanical Drawing I.** Second year, spring term. Exercises in lettering, shading, and the drawing of simple mechanisms. Each student is expected to provide himself with the following drafting supplies: Triangles, T square, scale, pencils, pens, ink, erasers, thumb tacks, and drawing instruments. It is desired, however, that the supplies be not purchased until after consultation with the instructor in charge of the work.

10. **Pattern-making.** Second year, spring term. This term's work includes wood-turning and pattern making. Each student is required to turn several specimens and make various patterns. Tools required: One two-foot rule, one pair three-inch to five-inch dividers, one pair five-inch outside calipers, one pair five inch inside calipers, one six-inch scale.

11. **Mechanics.** Third year, fall term. A course in elementary mechanics, including the laws of motion, force, work, and energy, together with the composition and resolution of forces. Preparation required: Trigonometry and kinematics of machinery. Text book, Dana's Elementary Mechanics.

12. **Shop Lectures III.** Third year, fall term. Lectures are given on shop methods, duplication of work, etc. Preparation required: Shop lectures II.

13. **Mechanical Drawing II.** Third year, fall term. The design of cams, gears, and quick return motions. Preparation required: Mechanics and mechanical drawing I.

14. **Machine-shop I.** Third year, fall term. Practice in chipping, filing, scraping, and laying out work from drawings.

15. **Mechanical Drawing III.** Third year, winter term. A continuation of mechanical drawing II, and practice in machine drawing.

16. **Machine-shop II.** Third year, winter term. Instruction in lathe work, gear-cutting, boring, and drilling. Tools required: One two-foot rule, one six-inch scale, one pair three inch to five-inch dividers, one pair five-inch outside calipers, one pair five-inch inside calipers, one center gage, one center drill. Students are advised to purchase a combination square, but this is not required.

17. **Valve Gears.** Third year, spring term. A study of the design, construction and operation of the valve gears and linkages of steam- and other engines. Preparation required: Mechanics and differential calculus. Text-book, Peabody's Valve Gears for Steam-engines.

18. **Shop Lectures IV.** Third year, spring term. Lectures on the selection, arrangement and organization of manufacturing plants; cost, accounting, etc. Preparation required: Shop lectures III.

19. **Mechanical Drawing IV.** Third year, spring term. A continuation of the previous term's work.

20. **Machine-shop III.** Third year, spring term. Advanced work on lathes, planers, and milling machines, including tool-making.

21. **Steam-boilers.** Fourth year, fall term. A study of the construction, erection and operation of steam-boilers and appliances, including the study of tools. Preparation required: Valve gears and integral calculus. Text book, Peabody and Miller's Steam-boilers.

22. **Graphic Statics.** Fourth year, fall term. The graphic solution of the problems arising in the construction of roofs, bridges, and other framed structures. This subject is taught by means of lectures and drawing exercises. Preparation required: Mechanics and mechanical drawing IV.

23. **Shop Lectures V.** Fourth year, fall term. Lectures on the transmission of power by electricity, including a course of instruction in the construction, care and operation of electrical machines most likely to be met with in practice by mechanical engineers. Preparation required: Shop lectures IV and valve gears.

24. **Engineering Laboratory I.** Fourth year, fall term. Experiments in valve setting, efficiency of hoists, gage and planimeter tests, etc. Preparation

required: Third-year mechanics and steam boilers. Text-book, Smart's Laboratory Practice.

25. **Mechanical Drawing V.** Fourth year, fall term. The design of the valve motions and reciprocating parts of the steam-engine, and work in drawing-room based on the classroom work in valve gears.

26. **Mechanical Drawing VIII.** Fourth year fall term. This work is given the electrical engineers only, and consists of exercises in machine drawing, etc.

27. **Machine-shop IV.** Fourth year, fall term. The time of this term is devoted to the building of a small machine or making the parts of a large one.

28. **Thermodynamics I.** Fourth year, winter term. A study of the thermodynamic principles of perfect gases, saturated and superheated vapors, and the theory of injectors. Preparation required: Steam boilers and definite integration. Text-book, Peabody's Thermodynamics of the Steam-engine.

29. **Applied Mechanics I.** Fourth year, winter term. The application of the principles of theoretical mechanics to problems arising in practice. Preparation required: Graphic statics and definite integration. Text-book, Goodman's Mechanics Applied to Engineering.

30. **Shop Lectures VI.** Fourth year, winter term. Lectures on the design, construction and operation of steam-turbines. Preparation required: Thermodynamics I.

31. **Engineering Laboratory II.** Fourth year, winter term. A continuation of the previous term's work, with practice in running steam-engine and air-compressor tests. Preparation required: Engineering laboratory I.

32. **Mechanical Drawing VI.** Fourth year, winter term. The design of a complete machine, engine, or boiler; an application of the principles studied in thermodynamics and applied mechanics. Preparation required: Mechanical drawing V and steam boilers.

33. **Machine-shop V.** Fourth year, winter term. A continuation of the previous term's work.

34. **Engineering Laboratory IV.** Fourth year, winter term. A course in testing the strength of materials and steam-engines, for electrical engineering students.

35. **Applied Mechanics II.** Fourth year, spring term. A continuation of the work of the previous term, including a study of the strength of materials and the design of structural members. Preparation required: Applied mechanics I. Text book, Goodman's Mechanics Applied to Engineering.

36. **Thermodynamics II.** Fourth year, spring term. A continuation of the work of the previous term, including the thermodynamics of gas-engines and air-compressors. Preparation required: Thermodynamics I. Text-book, Peabody's Thermodynamics of the Steam engine.

37. **Hydraulics.** Fourth year, spring term. This term's work includes a study of the principles of hydrostatics and the action of water motors. Preparation required: Third-year mechanics and definite integration. Text-book, Meriman's Treatise on Hydraulics.

38. **Mechanical Drawing VII.** Fourth year, spring term. A continuation of the previous term's work.

39. **Engineering Laboratory III.** Fourth year, spring term. A continuation of the previous term's work, including tests on the strength of materials and tests on gas-engines. Preparation required: Applied mechanics I and thermodynamics I.

40. Thesis. Fourth year, winter and spring terms. Engineering students are required to present for graduation a suitable thesis on some subject relating to their work. It is expected that the work done on the thesis will be equivalent to at least five hours per week during the winter term and ten hours per week during the spring term.

EQUIPMENT.

The shops of the Kansas State Agricultural College are furnished with the best modern machinery and tools for working both wood and iron, and are in operation six days per week throughout the year.

Wood Shop.—This wood-working room is 40x103 feet, contains 220 separate kits of tools, and benches for forty-four students in each class, eight wood lathes, with sixteen sets of turning chisels and other tools, wood planer, circular saw, friezer, power mortising machine, grinders, and tool room containing all kinds of wood-working tools for general use, together with complete outfit of wheelwright's tools.

Machine-shop.—This room is 40x80 feet, contains twelve fourteen-inch engine lathes, one twenty-eight-inch by twenty-foot engine-lathe equipped with blocks to raise it to sixty inch swing, one sixteen-inch combination engine- and turret-lathe, speed-lathe, Gray planer, Hendey-Norton shaper, Brown & Sharpe No. 2 universal milling-machine, Walker universal grinder, special drill-grinder, key-seater, bolt-cutter, pipe-machine, vertical drills, fifty-one-inch vertical turning- and boring-mill, benches and tools for fifty students, and a completely stocked tool-room, equipped with the finest modern tools.

Blacksmith Shop.—This room is 40x50 feet, equipped with twenty-four forges fitted with power exhaust. Each forge has anvil and complete set of smithing tools. In addition to the general tools for a fully equipped blacksmith shop, there are also installed here a drill-press, emery-grinders, cold saws, and a number of pieces of special apparatus built by the department.

Iron Foundry.—This room is 40x50 feet, equipped with a two-ton cupola, a one-and-one-half-ton steel crane, core oven, an exceptionally large number of flasks, both wood and iron, ladles, etc. The foundry makes all castings for machine building, together with boiler fronts, grate-bars, and special repair work.

Brass Foundry.—This room is 16x30 feet, with furnace, crucibles, flasks, and a complete equipment for bench and floor molding. The product consists of bearings, friction metal, valves, fittings, etc.

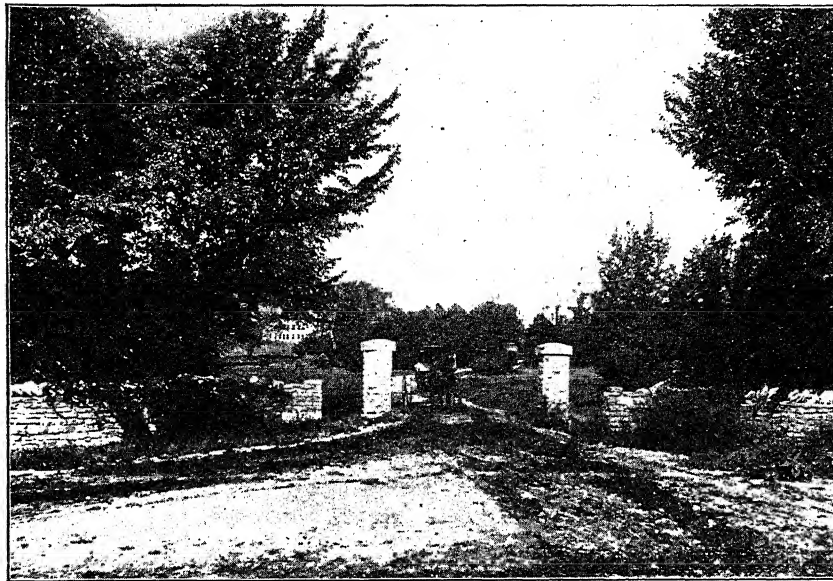
Pipe-fitting Room.—This room is 18x50 feet, containing a motor-driven Jaracki pipe-machine, and is completely equipped with tools used by steam-fitters. Practice in pipe-fitting and steam-fitting is given. This room is also used for storing patterns, of which the College has a large and valuable collection.

Engineering Laboratory.—This room is 35x40 feet, and contains a great variety of apparatus, among which may be specified a 100,000-pound testing-machine, both automatic and autographic; an eight-horse-power vertical steam-engine; an eight-by-eight Ingersoll-Sargeant air compressor; a six horse-power Sturtevant engine, used as an air motor; a ten-horse power Witte gasoline-engine; a six horse-power Dempster gasoline-engine; complete cement-testing outfit; absorption and transmission dynamometers; steam- and gas-engine indicators, gage-testing apparatus, and a variety of special machines for the testing of materials; also, thermometers, calorimeters, speed indicators, etc. The very complete boiler- and engine-rooms adjoining the laboratory afford special opportunities for the work relating to steam engineering. Yards and sheds have been provided for carrying on tests that cannot be made in the laboratory. The de-

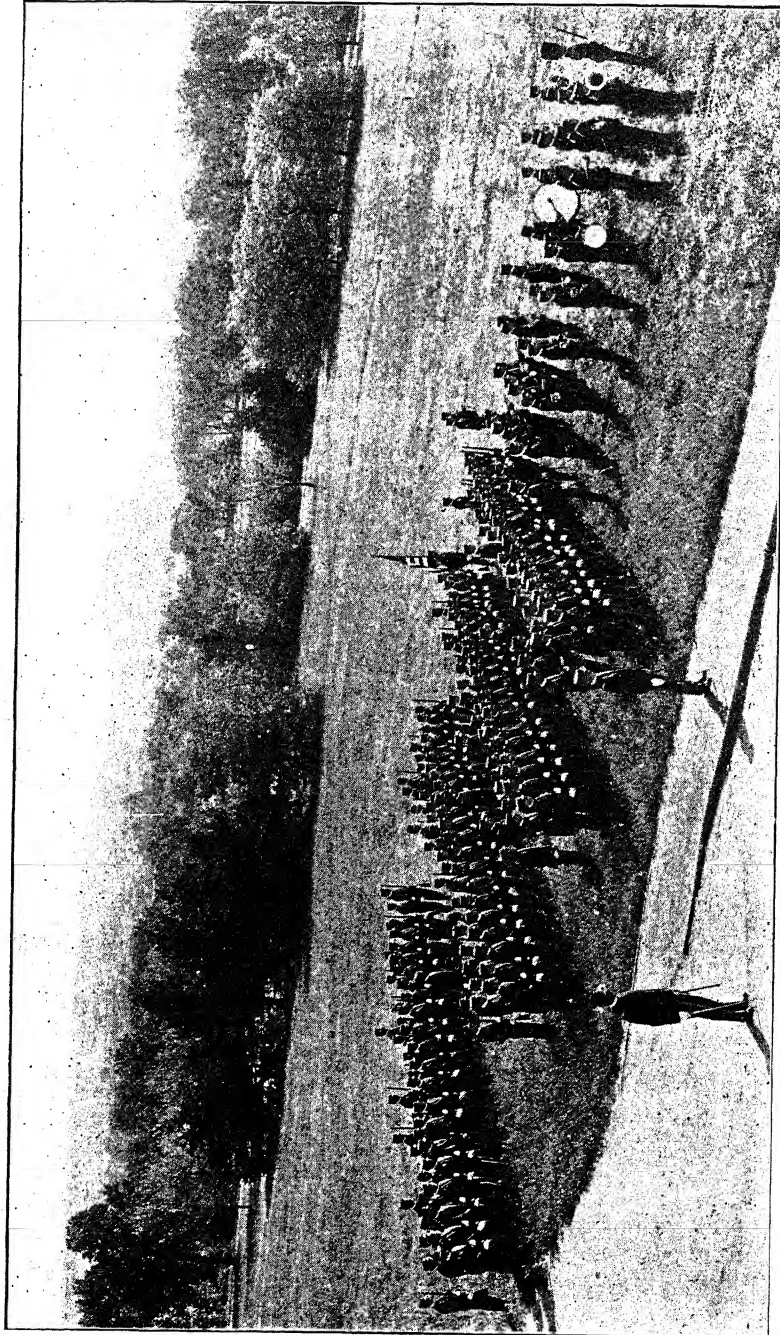
partment has a twenty-horse-power Avery traction-engine that is fitted up to run boiler, engine, and traction tests. There has recently been installed a Miles concrete-block machine. The cement blocks made in this machine will be tested under various conditions of mixture, age, etc. Tests will also be made to determine the effect of fire on building blocks.

Power Plant.—The boiler room contains five sixty-horse power horizontal, return-flue boilers, three 100-horse-power boilers, pumps, steam-traps, etc. These boilers are used for the generation of steam, both for power and heating purposes, and are independently connected, that they may be tested individually or in groups. The engine-room is equipped with one 100 horse power, medium speed engine, directly connected to a 60 K. W. multipolar generator, with marble switch-board and complete apparatus; one fifty-horse-power Ball & Wood engine, belted to bipolar generator, with switch-board; one ten-horse-power Atlas engine; one five-horse-power generator, built in the shops, for testing purposes; one Shipman coal-oil engine, and several small dynamos for testing purposes. In connection with the power plant is a very complete rope-driven installation, especially designed for the department.

Drawing-rooms.—On the second floor of the wood-working department are found the drawing rooms, photographic rooms, and paint and varnish rooms.



MAIN ENTRANCE.



COLLEGE BATTALION.

Military Training.

This institution being one of the beneficiaries of the act of Congress of 1862, instruction in military tactics is made compulsory. The course of instruction is made to conform strictly to the provisions of General Orders No. 65, War Department, 1904, as amended by General Orders No. 57, War Department, 1905.

In compliance with the minimum requirements of that order, the course will be both practical and theoretical, and applied as follows:

a.—Practical.

- 1.—Infantry drill regulations, through the school of the battalion, in close and extended order.
- 2.—Advance- and rear-guards and outposts.
- 3.—Marches.
- 4.—The ceremonies of battalion review, inspection, parades, guard-mounting, and escort of the colors.
- 5.—Infantry target practice.
- 6.—Instruction on first aid to the injured.

b.—Theoretical.

- 1.—The infantry drill regulations, covered by the practical instruction.
- 2.—The manual of guard duty.
- 3.—Small-arms firing regulations, parts I, II, and III.
- 4.—The Articles of War, with specific reference to articles 4, 8, 15, 20, 21, 22, 23, 24, 32, 38, 39, 40, 42, 44, 46, 47, 50, 55, 57, 61, and 65.
- 5.—And the following records:

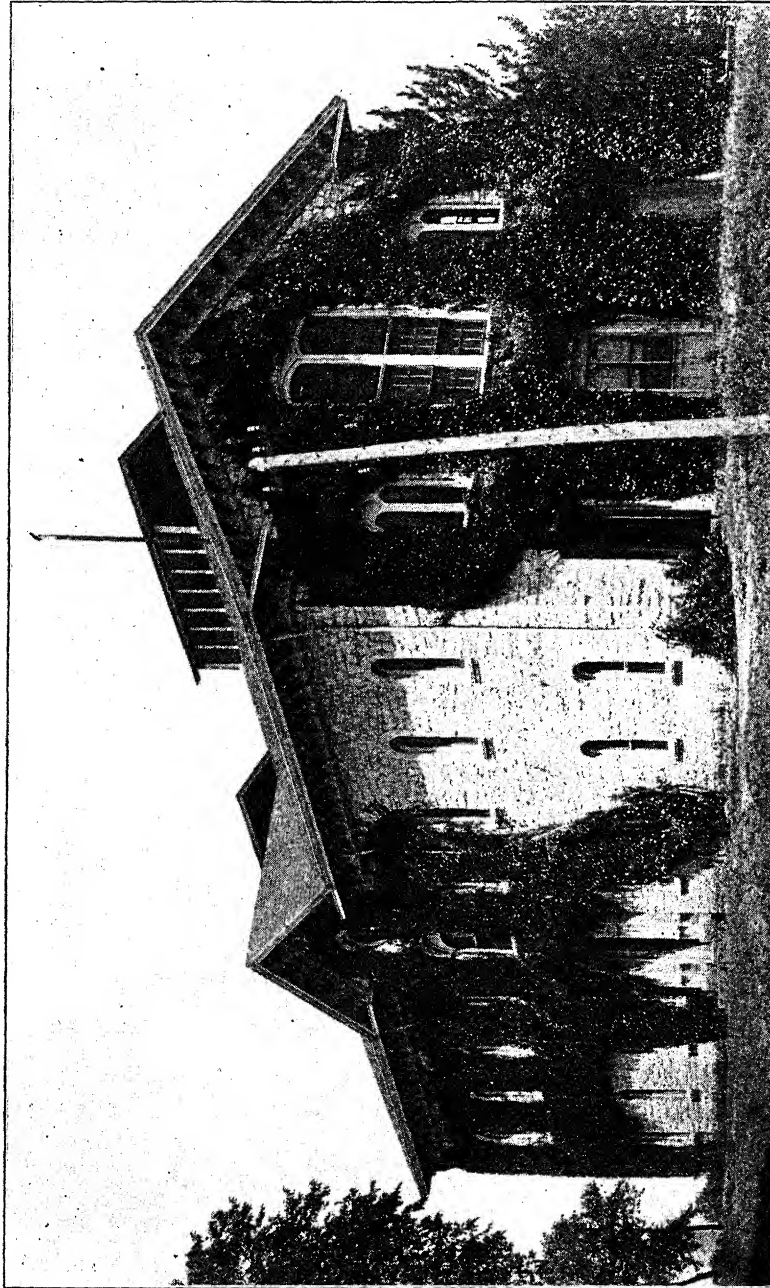
Enlistment and discharge papers, including descriptive lists.
Morning reports.
Field and monthly returns.
Muster-rolls.
Rosters.
Ration returns.
Requisitions.
Property returns.

And a lecture course, as follows:

Two lectures on the organization of the United States army, including volunteers and militia.
One lecture on patrols and outposts.
One lecture on marches.
At least one lecture on camps and camp hygiene.
Three lectures on lines and bases of operations.
Two lectures on the attack and defense of advance- and rear-guards and outposts, and convoys.

All of the foregoing to be illustrated by historical examples. These lectures are to be made the basis of subsequent recitations and of written examinations.

The national government has supplied the College with 395 cadet rifles and an equal number of sets of infantry accouterments; also two three-inch field-guns and carriages. Swords, target supplies and annual issues of ball and blank cartridges are also received from the general government. Each student buys his own suit, to be worn at all drills. The following is a description of the suit: "This suit to consist of regulation blue cap, with College emblem; blue blouse, cut and trimmed in officers' style, trimmed with black mohair braid one and one-half inches wide; gray trousers, trimmed with black mohair braid."



ARMORY.

War Department Record. At the close of the year the names of the three cadets most distinguished in military science and tactics are reported to the War Department for insertion in the United States army register, and also to the adjutant general of the state.

Organization. Cadets are organized into a battalion of infantry and a band, the drill and administration of which shall conform to that of the United States army. Officers and non-commissioned officers are selected by the professor of military science and tactics, with the approval of the President, according to the principles governing such selection at the United States Military Academy, and receive commissions and warrants from the President of the College.

Discipline. Each cadet is furnished with a copy of the cadet regulations governing the military department, approved by the Board of Regents, and is required to familiarize himself with them and to conform strictly to their requirements.

Band. Assignments to the band are made by the professor of military science and tactics, on the recommendation of the professor of music, who is charged with the technical instruction. Practice in the band is accredited, through the military department, in lieu of drill and theoretical instruction, subject to the provisions of the cadet regulations, with which strict conformity is required.

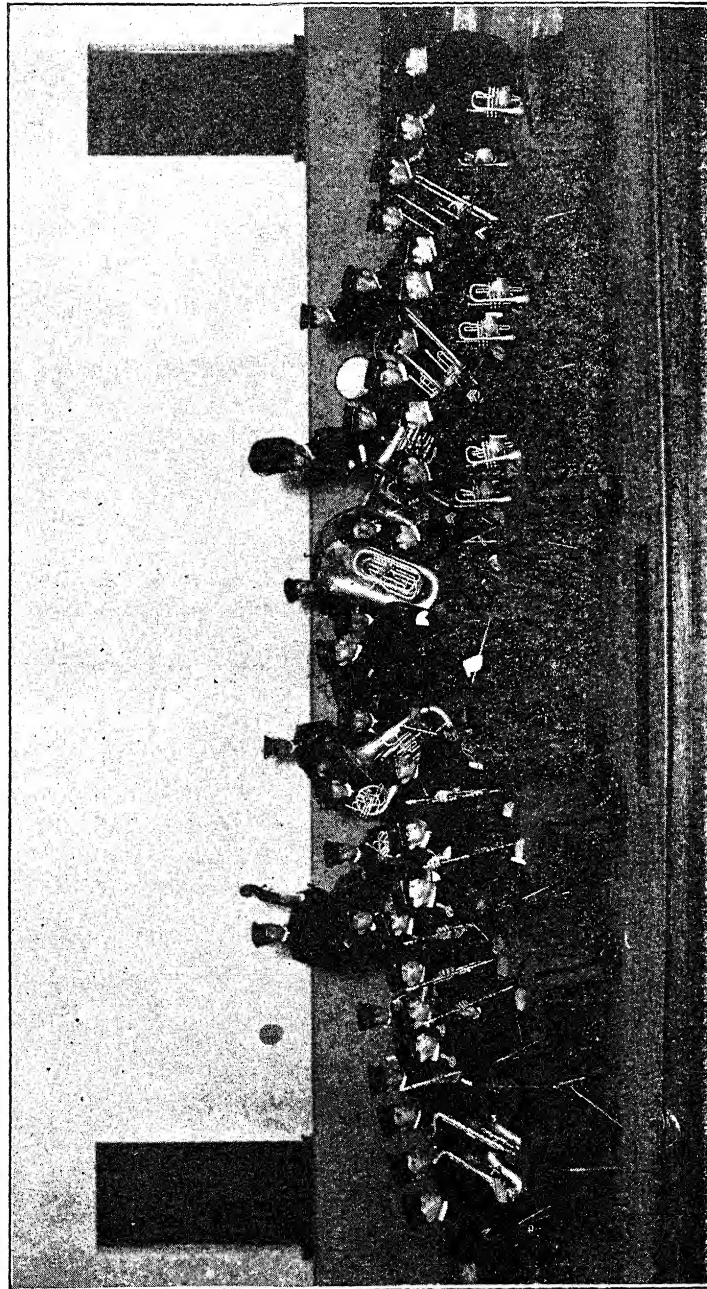
The purpose of the cadet band is to foster and encourage among the cadets a love for patriotic national airs and martial music. With this end in view, the band is subject to the orders of the professor of military science and tactics for instruction and discipline.

Requirements. All young men are required to satisfactorily complete six terms' work before graduation, unless excused for physical disability. Drill periods scheduled in the course of study refer to full hours of sixty minutes each. Additional work is optional with juniors and seniors, who are given preference for appointment as officers. A junior or senior having enrolled optionally and accepted a commission is required to continue the work throughout the college year, subject to the same regulations as other cadets.

Uniform. The uniform is simple and inexpensive, and makes a good suit for regular wear. All students will be required to present themselves in uniform within ten days after assignment.

Text-books.—Each military student will be required to provide himself with the following text-books: United States Drill Regulations (latest edition), The Manual of Guard Duty (latest edition), Small-arms Firing Regulations (latest edition), Tutherly's Military Science (latest edition).

The instruction in keeping records will be from blank books, to be provided by the War Department. The articles of war specifically mentioned are among the most important for the young officer to know on first entering the service. The records prescribed for study should be thoroughly understood by all graduating cadets, because they show how the soldier enters and leaves the service, how he is accounted for, paid, fed, clothed, armed, and how his military duties are regulated.



COLLEGE BAND.

Music.

Recognizing music as a factor in education which is practical and elevating, and believing that the germ of artistic faculty exists in every normal person, the following generous provisions have been made for its introduction into the several courses:

Pupils may take music for a single term or more. A full course, extending over four years, includes theory, notation, singing, voice culture, harmony, composition, instrumentation, and technical drill on one or more instruments. The College pianos and organs (limited in number) are used for daily practice by pupils who takes music as an industrial.

Instruction in music is furnished free, under the direction of the professor in charge, to all pupils in the College, as follows:

1. **Singing, Notation, and Theory.** Classes will be organized at such periods as will best accommodate the pupils interested.

2. **Instrumental Music, Musical Theory, and Harmony.** Classes will be organized, for pupils in the regular courses, at such periods as will best accommodate them, under the following conditions:

a. **Optional.** All music is optional—is taken at the choice of the student—but after assignment regular attendance is required, as at other classes. Class organization shall be wholly under the control of the professor of music.

b. **Musical Organizations.** Each instrument has a distinct function in the science of tonal expression, and only in their combination are the finest effects in the coloring of the melody, harmony and rhythm procured. This combination is made possible in the musical department by the number of pupils and the variety of instruments studied. All students who are sufficiently advanced to join the College choral union, College glee club, College orchestra, elementary band, or the College band, may become members by assignment.

c. **College Band.** Assignments are made for the entire year, and membership requires regular attendance until after commencement exercises.

d. **Public Exercises.** Music for commencement week and other public College exercises is furnished by the musical department, under the direction of the professor in charge, and all students in the department shall be subject to his call to assist in furnishing the same.

e. **Annual Concert.** An annual concert will be given on the second Thursday in March.

Uniforms. Members of the College band are required to present themselves in uniform, which is inexpensive, within ten days after assignment. The following is a description of the uniform: This suit to consist of the new regulation musician's cap, with embroidered ornament, wreath, and lyre; blue blouse, cut and trimmed in officer's style, lyre one inch high on collar, with shoulder knots; gray trousers, trimmed with red stripes.

COURSES OFFERED.

The Voice. In the study of this instrument, the most natural and universal means of musical expression, notation is taught in connection with the establishment of a pure tone, in which there shall be resonance, volume, flexibility, and expression. The instruction will include the rudiments of music, notation, sight-reading, ear-training, theory, harmony, voice culture, methods of teaching, practice in teaching, and drill in solo, quartet and chorus singing. Texts: Ran-

degger's Singing; select studies from Concone, Vaccai, Bordegni, Marchesi, Emery's Elements of Harmony, Weitzman's Theory, and other standard works.

The Piano. In the study of this instrument, which occupies a place of so much dignity and importance in every musical education, great attention is given to every detail of technique and to the development of a correct touch, which is so necessary in giving intelligent expression to musical thought and feeling. It includes formation and position of fingers, hands, wrists, and arms, properties of touch, thorough drill in scale and arpeggio playing, and exercises in accent, rhythm, and expression. The curriculum is chosen from the works of the standard composers, not omitting modern European and American writers, who best represent the modern spirit and progress. The following outline of a course of study, made with reference to the musical value of the selections, as well as to the special necessities of the pupils, may be followed or varied by the professor in charge. Text, selections from the following works or their equivalents: Studies in position and touch—Plaidy, Czerny, Koehler, Mathew's Standard Studies; Mason's Touch and Technic; sonatinas by Clementi; modern pieces. Studies in the development of technique from Heller, Loeschorn, Lemoine; sonatinas by Kuhlau; Mason's Touch and Technic; Cramer's Studies; inventions by Bach; Kullak's Preparatory Octave School; etudes by Moscheles; sonatas by Mozart; Beethoven; modern pieces; Kullak's Octave School; Tausig's Daily Studies; Bach's Preludes and Fugues; concert pieces by Liszt; Schumann. Memorizing.

The Cabinet and Pedal Organ. The cabinet organ has a field of its own, and should have appropriate treatment, in many respects different from the piano. When properly played it is of much value in church and social circles. It is here taught so as to be preparatory to the pedal and pipe-organ. Text, standard schools. Selected studies and pedal studies, chorals, hymns, and recreations suitable to the instrument.

The Violin. Particular attention is given to correct position, intonation, and bowing; also to solo and orchestral playing. Text, selections from the following works or their equivalents: Methods by Wichtl, Henning, and De Beriot; exercises by Dancla, Pleyel, Schradick, Kayser, David, and easy solos; etudes of Kreutzer; solos by De Beriot, Leonard, Dancla, Singelee; modern pieces. Memorizing.

Orchestral and Band Instruments. Similar courses of instruction are given on all the more important orchestral and band instruments—string, wood, wind, and bass; also mandolin and guitar. Opportunities are also furnished advanced pupils for orchestral, band, quartet and accompaniment playing. Text, selections from the standard methods; studies and recreations suitable to the instrument.

Musical Theory, Composition, Instrumentation, and History of Music. The aim of these courses is to give the pupil an intelligent conception of music as a science and an art, and to lay a foundation for later studies which he may undertake in the field of artistic performance and original work in musical composition. The instruction given includes theory, notation, harmony, counterpoint, composition, instrumentation, analysis of form and style, and musical history. Texts: Elson's Theory of Music, Brown's Prismatic Charts, Berlioz's Orchestration, Marx's Composition, Prout's Instrumentation, Mathew's History of Music.

Philosophy.

To be able to grapple most advantageously with the serious problems of life, one must have an intimate acquaintance with himself. To be able to become a valuable member of society, he must know how to develop and use his mental powers judiciously. Too many people are inclined to regard their mental activities as a sort of fixed inheritance, with little or no possibility of readjustment. It is the aim of this department to interest the student in a more careful study of the mental phases of human life, and to aid him in a more definite and systematic knowledge of the meaning of his own concrete experiences.

The several subjects are offered, as follows: No. 1 is required in all courses; No. 2, in the general science course; and No. 3, in domestic science and general science courses.

1. **Elementary Psychology.** First year, winter term. This course is intended to give the student (*a*) a general idea of the meaning of psychology, and (*b*) a better method of expending his time and energies in the pursuit of college work. Not less than ten lectures will be given, as follows: (1) Neural basis of mind, (2) perception, (3) imagination, (4) memory, (5) habit, (6) thinking, (7) the emotions, (8) the will, (9) self-confidence, (10) methods of study and work. No text-book used.

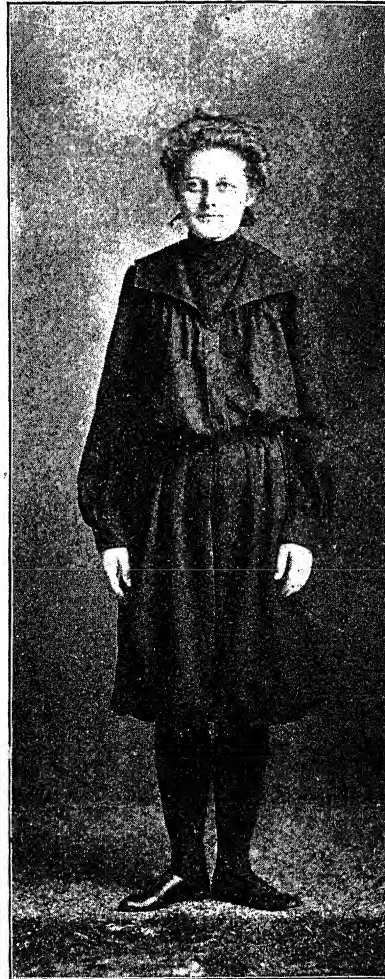
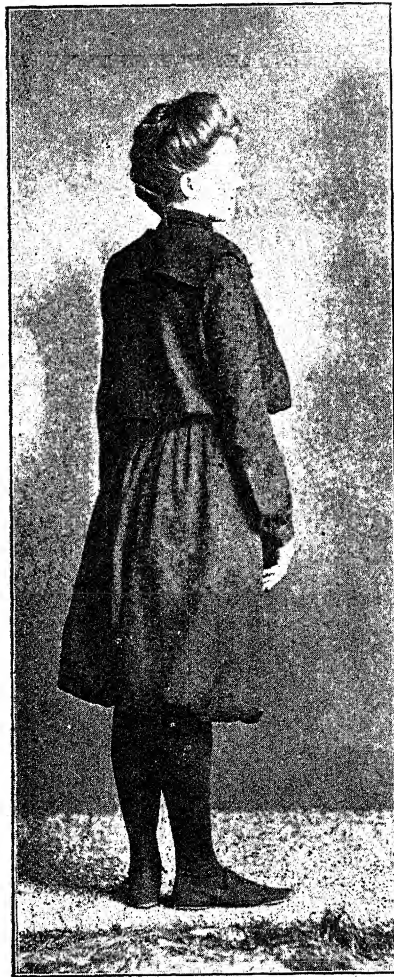
2. **Logic.** Fourth year, fall term. While formal or deductive logic is studied briefly, the greatest emphasis is placed upon the inductive phase of the subject. Special prominence is given to methods of exact observation and experiment and correct principles of classification. The previous researches and experiences of the students are made to illustrate these principles. Some of the ends sought are: (1) To enable the student to think more clearly and to express his thoughts more lucidly; (2) to enable him more readily to detect the erroneous statements of others, whether made by design or through ignorance; (3) to imbue himself more fully with the scientific spirit, which is the guiding principle of human progress to-day; (4) to lead him into habits of systematic, scientific methods of work in whatever vocation he may follow during later life. Text-book, Creighton.

3. **Psychology.** Fourth year, winter or spring term. An effort is made to master the general principles of the subject, the various mental processes being analyzed and explained. Some attention is also given to theories of right and wrong and correct principles of action. Considerable time is given to the discussion of mental poise, self-control, emotional expression, the influence of the mind on the body, and the like. Special effort is made to enable the student to get the psychologic point of view, to the end that he may obtain a better understanding of himself and of human nature in general. He will then think of others in terms of mental conduct rather than in terms of physical conduct; and, having been made more fully aware of the obstacles that confront every earnest soul, he will become more sympathetic. Finally, as a result of systematic mental discipline, the student may expect to meet with greater success in his chosen vocation. Some simple experiments are performed, and each member of the class is given a topic for special research. Text-book, James.

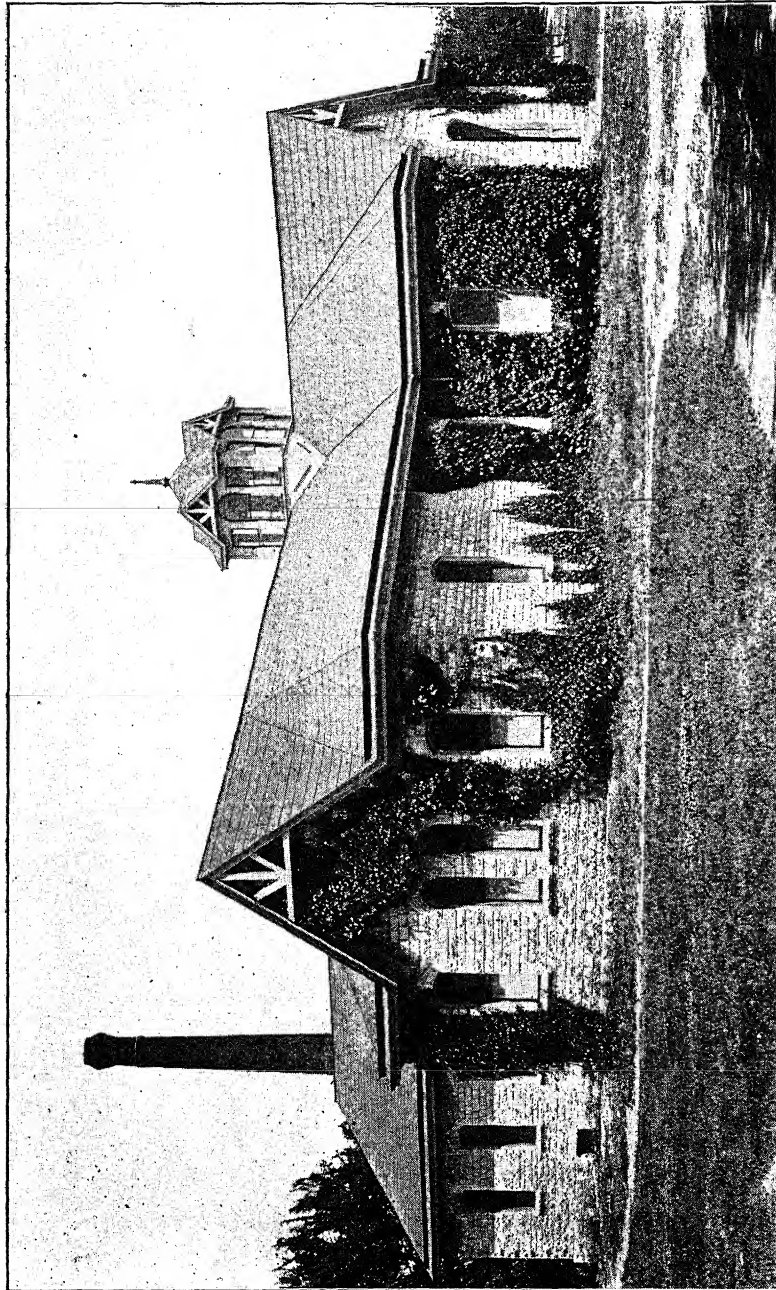
ELECTIVES.

4. **Ethics.** In this brief course the aim will be: (1) To make a brief historical review of the several types of ethical theory; (2) to examine more critically the two great tendencies of the subject, viz., the hedonistic and the idealistic; (3) to arrive finally, if possible, at a working ideal on the subject of moral conduct.

5. Pedagogy. It has been found that a considerable number of the graduates of this College become public-school teachers. An act of the legislature grants to such graduates a three year state certificate, renewable for life, provided they pass an examination in the so-called professional branches. These are given, as follows: History of education and school law, fall term; philosophy of education, winter term; methods and management, spring term.



PHYSICAL TRAINING SUIT.



WOMEN'S GYMNASIUM.

Physical Training.

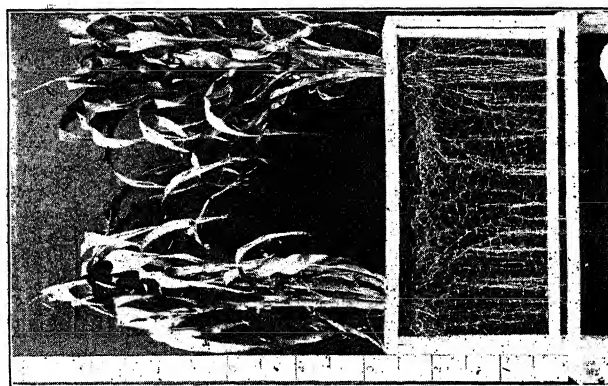
The maintenance of robust health and a good constitution should be one of the chief aims of every girl. It is impossible to cultivate the body without benefit to the mind; likewise, in order to cultivate the mind properly one should learn to care for the body. With this end in view a gymnasium for women has been provided. It is well equipped with apparatus, shower-baths, lockers, etc., and a well-regulated system of physical training is in successful operation.

The German system of educational gymnastics is used as the basis of the work, while other systems are used in connection with it. Corrective and medical gymnastics are given to such as need them. The primary object of the work is to promote health, strength and symmetry of the body and to correct physical defects.

Daily classes are held in light gymnastics—free standing work, marching, fancy steps, drills with dumb-bells, wands, and Indian clubs, with musical accompaniment; heavy gymnastics, including horse, parallel bars, chest weights, flying ring, ladder, stall bars, climbing ropes, and horizontal bar. Gymnastic games, including tennis and basket-ball, are taught to those who care to learn. When the weather permits, exercises are taken in the open air.

All young women of the College have access to the privileges of the gymnasium, while those below the third year must elect physical training or music. Before entering upon the work, a physical examination is made by the director. The examination includes measurements of physical proportions, and takes note of the condition of the heart and lungs. From this examination an anthropometric chart is platted, showing size, strength, and development, and defects in comparison with the normal standard. Frequent measurements are taken and comparisons made to show effects of training.

A uniform suit has been adopted, which all the girls taking gymnasium work are required to provide themselves with. This should be done before entering school. The suit is black, and consists of a blouse waist and bloomers, and must be made in the uniform style, color, and cloth. The pattern for the suit may be obtained by sending twenty-five cents and bust measure to the director of physical training. Samples of cloth will be sent on application. Gymnasium shoes may be purchased at prices ranging from fifty cents to one dollar and thirty-five cents. The entire suit, including shoes, need not cost more than three dollars. Those who are unable to provide themselves with suits before entering school may hire them made in Manhattan, at a cost of one dollar and fifty cents.



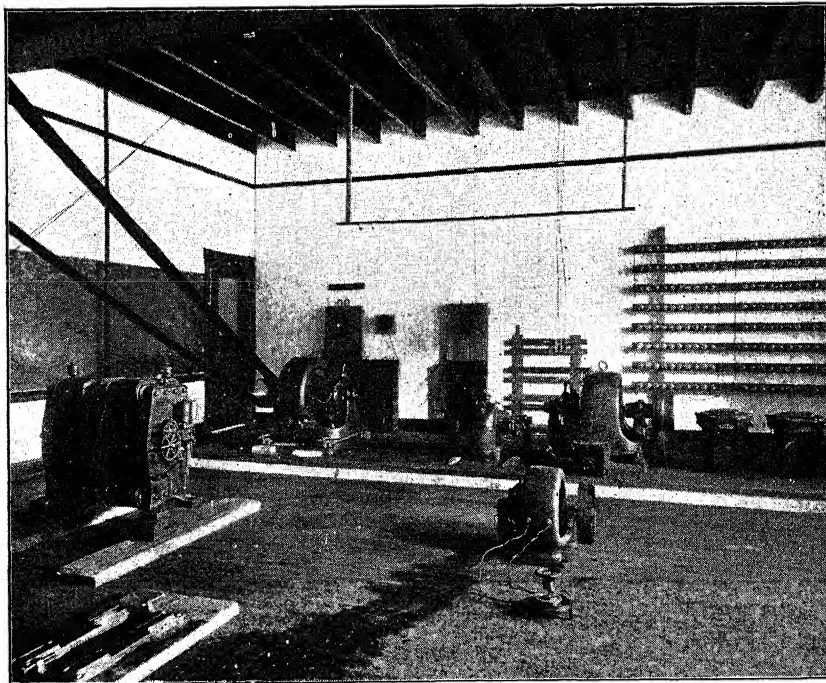
CORN ROOTS 60 DAYS AFTER PLANTING.

Physics and Electrical Engineering.

In the following courses instruction is given by text books, lectures, and laboratory work. The treatment is both theoretical and practical. Recitations and lectures are illustrated by means of apparatus and the projection lantern. The purpose of the general course in physics is to lay a thorough foundation in the fundamental principles of physical science and in the theory and practice of precise measurement. The physical laboratories are large, well lighted, and equipped with the necessary apparatus for both the elementary and advanced laboratory courses.

The course in electrical engineering is designed to provide the necessary preparation for young men who desire to engage in the practical work of electrical engineering. The theoretical work begins in the third year, with course No. 3 in physics. An extended course in laboratory work is given, covering the subject of electrical measurements, and prepares for the work of the fourth year in the dynamo laboratory. The electrical and dynamo laboratories are well equipped with high-grade apparatus and machinery, and afford every opportunity for a thorough preparation for practical work in electrical engineering.

Of the studies described, No. 1 is required in all courses; Nos. 4 and 5, in the general science and agriculture courses; Nos. 2 and 3, in the mechanical engineering course; Nos. 2, 3, 6, 7, 8, 9, 10, and 11, in the electrical engineering course.



ELECTRICAL ENGINEERING LABORATORY.

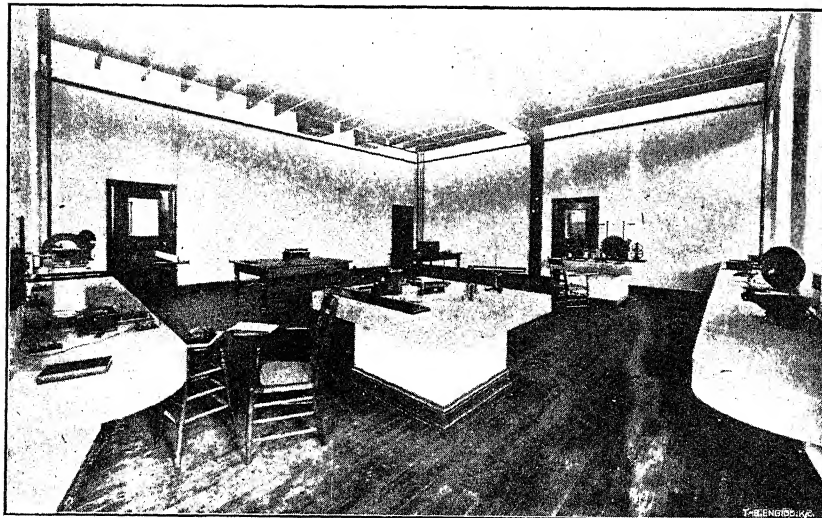
1. **Elementary Physics.** First year, spring term. The work is intended to give the student a general view of the subject, with such laws and principles as will be useful in scientific study, and includes the most important principles of mechanics, heat, sound, light, and electricity. Text-book, Henderson and Woodhull.

Laboratory.—In this work the importance of accurate observation and conclusions is emphasized. In the laboratory the exercises will consist of measurements with calipers, balances, spherometers, micrometer-microscope, pendulum, and other instruments of like nature. Careful records of experimental work are required.

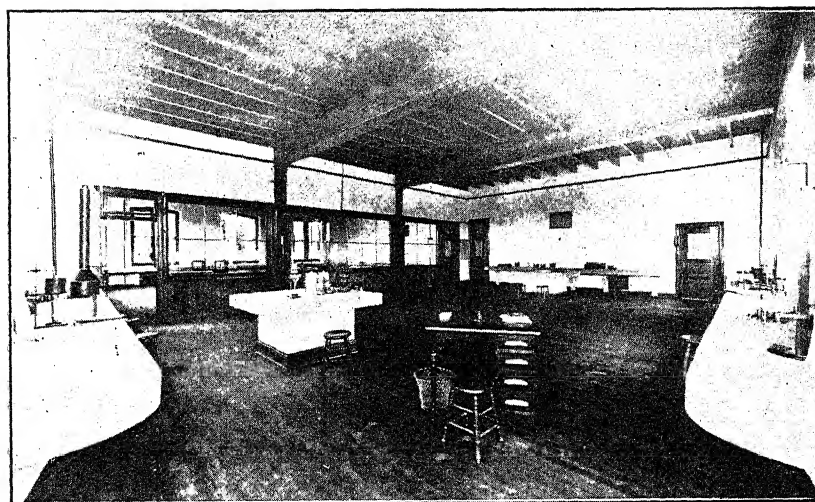
2. **Physics I.** Third year, fall term. During the term's work the general principles of heat and sound are treated, and the most approved methods for the measurement of each will be discussed and illustrated. The derivation of laws and formulæ, including the solution of problems involving these laws, will be required. Text-book, Watson.

Laboratory.—Experiments with the principal instruments used in exact measurement. The work is intended to give the student skill in the manipulation of instruments, in the interpretation and reduction of results, and in the use of data in curve-tracing.

3. **Physics II.** Third year, winter term. The first half of the term is devoted to the subject of light. In this subject it is the purpose to develop the modern theory of light and its special application to refined physical measurements. The last half of the term is devoted to the subject of electricity. The fundamental laws of current, resistance and potential are developed, and the various methods and instruments by which they are measured and discussed. Use and care of batteries, electric wiring for lighting, telephone and bell circuits, wire inspection according to underwriters' rules.



ADVANCED PHYSICS LABORATORY.



ELEMENTARY PHYSICS LABORATORY.

Laboratory.—This work is designed to give the practical application of the laws of optics, the use and adjustment of surveying instruments and telescopes, lens testing, spectrometry. In electrical measurements, it consists of the measurement of resistance and current and the calibration of instruments. Every opportunity is given to become familiar with the electric current and the proper use and care of electrical instruments.

4. **Physics III.** Third year, winter term; and fourth year, fall term. A thorough study of the laws of forces and motion. Composition of forces and velocities by graphic and trigonometric solutions. Nature of sound; its wave motion and velocity; the factors that will change the velocity, and the phenomena produced by its reflection. Thermometry, calorimetry, the laws of radiation, and the absorption of heat. Text-book, Hastings and Beach.

Laboratory.—This work will be of such nature as to give students an opportunity to make experimental tests of the laws in the subjects discussed in the classroom.

5. **Physics IV.** Third year, spring term; and fourth year, winter term. Electricity, magnetism, and light. This course is intended to give the student a historical review of the development of electricity and magnetism. The methods of measuring current and resistance will be discussed and illustrated. The solution of problems involving the laws derived in the classroom is required. Nature of light; laws of reflection and refraction. Construction of images in plane, concave and convex mirrors. Diffraction and interference. Text-book, Hastings and Beach.

Laboratory.—This work will include measurement of resistance, current, and potential; electrolysis, magnifying power of lenses, focal lengths, photometry, etc.

6. **Theory of Electricity.** Third year, spring term. Physics is begun in the fall term. The following subjects are treated: Current electricity, potential, resistance, quantity, theory of electrical measurements, induction, hysteresis, use of condensers, electrochemistry, elementary principles of the dynamo and motor, the ballistic galvanometer, Carey-Foster bridge, the various methods for the measurements of high resistances, calibration of commercial voltmeters and ammeters, the storage battery, etc. This course is, in many respects, the most important for the engineer, as it prepares the way for the more-advanced work of the fourth year and affords every opportunity for exact measurement and mathematical treatment. Text-book, S. P. Thompson's *Elementary Lessons in Electricity and Magnetism*.

Laboratory.—It is the purpose of the laboratory course to continue the work of the classroom in the practical application of the principles and methods developed, the experiments being arranged to follow closely the theoretical development of the subject. The experiments include the measurement of current, potential, resistance, quantity, hysteresis, cable-testing, calibration of instruments, photometric tests of arc and incandescent lamps, use of Carey-Foster bridge, battery tests, etc. Especial emphasis is laid on curve drawing and the interpretation of laboratory results. A number of reference books are used in this course.

7. **Direct-current Machinery.** Fourth year, fall and first half of winter terms. A continuation of the course in theory of electricity, including a detailed study of the principles of direct-current machinery, laws of magnetic circuits, the various types of machines and their characteristics, a study of efficiency and regulation, elements of design, the various methods of connecting for output and regulation, management, care and installation of machines. Text-book, Jackson's *Electromagnetism and Construction of Dynamos*.

Laboratory.—This course is designed to give familiarity with modern station practice. The laboratory is well equipped with one or more standard types of motors, dynamos, rotary converters, transformers, alternators, constant current transformers, arc and incandescent lamps, and the necessary alternating and direct-current measuring instruments. An extended study is made of direct-current machines and auxiliaries, curve plotting, tracing of E. M. F. and current curves of the various types of machines, photometric measurements of arc and incandescent lamps, various methods of determining efficiencies of motors and dynamos, machine characteristics, regulation, etc. The College and local plants offer additional opportunities for practical work. Courses of reading along the different lines of study are required.

8. **Alternating-current Machinery.** Fourth year, last half of winter and spring terms. The theory of alternating currents, the production of alternating electromotive forces, impedance, capacity and inductance in alternating-current circuits, measurement of power, the calculation of currents in reactive circuits, polyphase generators, induction motors, starting devices, transformers, etc. Text-book, Sheldon and Mason's *Alternating-current Machines*.

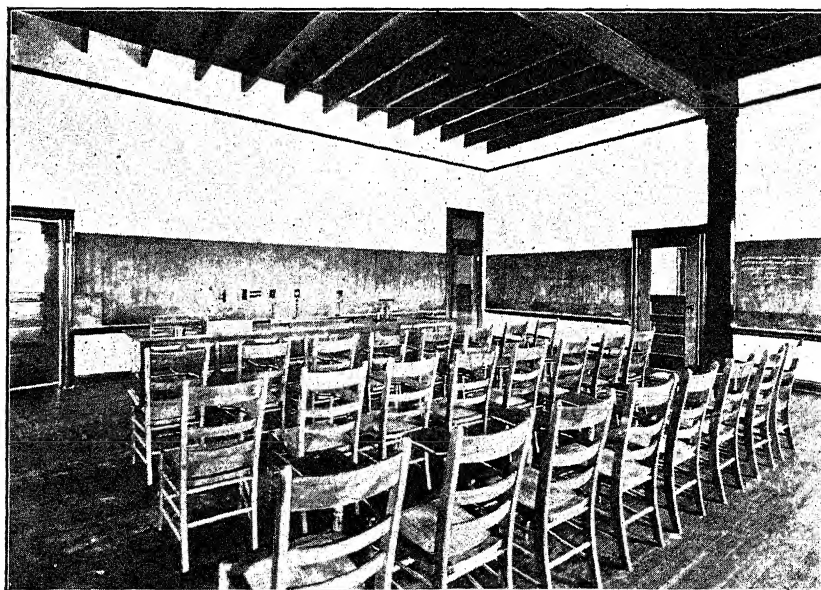
Laboratory.—Attention is given in this course to the work of testing transformers, alternators, rotary converters, induction motors, enclosed alternating arcs, and the various subjects taken up in classroom discussion.

9. **Dynamo Design.** Fourth year, winter term. In this course each student is required to make the necessary calculations and working-drawings of such parts or mechanisms of electric machinery as may be assigned to him; the work to be based upon classroom discussions.

10. **Power Stations.** Fourth year, spring term. The work in this course is based on Bell's Power Transmission, supplemented by lectures and inspection visits. The treatment includes discussion of station design, methods of power transmission, electric traction, systems of distribution, station management, etc. Text-book, Bell's Power Transmission.

11. **Electrochemistry.** Fourth year, fall term. This course will consist chiefly of a study of the processes employed in electro-metallurgy and the electro-chemical industries, the production of electrolytic copper, carborundum, etc. Such experimental work will be provided as the equipment of the laboratory will permit.

12. **Advanced Course in Physics.** Work in advance of the courses required of undergraduates will be offered to students who have completed the work in courses 1, 2, and 3, or the equivalent. The work will be largely of an experimental nature, with collateral reading and lecture work. While the student will work more or less independently, the course will be outlined and will be checked by the instructor in charge. Advanced problems in mechanics, heat, light and electricity will be taken up, and every opportunity offered to acquaint the student with the use of standard instruments in physical measurements. The course is especially adapted to accompany work in advanced chemistry, mathematics, or the needs of those intending to teach physics.



ADVANCED PHYSICS LECTURE ROOM.

Preparatory Department.

Inasmuch as many students seek admission to the College with inadequate preparation in one or more of the subjects required for entrance, it has been found necessary to establish a preparatory department, in which such deficiencies can be remedied. Instruction is given in all studies required for admission to the College. See "Terms of Admission."

1. **Arithmetic.** Instruction is given in the principles that underlie the various classes of problems, thus teaching the student to rely upon himself, not upon rules. Text, state book.

2. **Algebra I.** This includes the fundamental operations, factoring, highest common divisor, lowest common multiple, and fractions. State text.

3. **Algebra II.** Simple equations, involution, evolution, theory of exponents, and radicals as far as the subject of quadratic equations.

4. **Algebra III.** Quadratic equations, ratio and proportion, arithmetical and geometrical progressions.

5. **Bookkeeping.** This is not an extended course, but sufficient instruction is given to enable the individual to open and close accounts in ordinary business transactions. State text.

6. **English Grammar.** The aim is to lay a good foundation for the further study of English. Recognizing the fact that grammatical drill develops in students logical habits of thought, besides giving them greater command of language, special attention is given to the analysis and construction of sentences and to the principles of elementary composition. Two classes are formed each term, the B class completing the work in two terms; the A class in one term. Text, Longmans.

7. **Advanced Grammar.** One term. A review of the principles of grammar as preliminary to the College requirements in English. Practice in grammatical analysis of difficult sentences and of extended passages of literature. Also a study of the etymology of derivative words, of synonyms, of the uses of words, and of the principles of sentence structure, with practical exercises in word analysis.

8. **English Readings.** As a prerequisite to admission to the College classes in English, a careful study is made of a number of standard productions of first-class interest and easy style. Sketches of authors, both oral and written, character sketches, abstracts, outlines and analyses of every production are required. As these productions are mostly read and discussed in class, opportunity is afforded for considerable valuable training in pronunciation and effective reading.

List of Readings.—Shakspeare's Julius Cæsar; Irving's Sketch Book; Burns's Representative Poems; Tennyson's Idylls of the King; George Eliot's Silas Marner; Matthew Arnold's Sohrab and Rustum; Shakspeare's Macbeth.

9. **English Composition.** One term. The work is based on Smith and Thomas's Composition and Rhetoric. The text is completed to chapter XIII, with the addition of chapter XIX and the appendix, special attention being given to the study of usage and diction. The object of the work of this term is to give the student a knowledge of the elementary principles of composition, to improve his vocabulary, and to help him overcome the fear of expressing himself in writing. To this end he is encouraged to choose subjects that spring from his own experience or observation, and is required to present one theme each week, which, after being read before the class, receives corrections from the instructor in charge.

10. **United States History.** The leading facts, causes and sequences showing the growth of our country and national history are studied with a view to develop true patriotism. Text, McLaughlin.

11. **Ancient History.** This course is introduced by a brief study of Egypt, the Hebrews, and other oriental nations. The history of Greece is followed from its prehistoric conditions to its conquest by Rome, 146 B. C. The Persian and Peloponnesian wars must be studied, but the emphasis is laid rather on the life and government of the people in their city-states, on the age of Pericles, and the art, literature and philosophy of the Greeks. Alexander the Great is studied, not so much for his military achievements, but rather as the disseminator of Greek civilization. The last half of the term is devoted to Roman history. The growth of the nation is followed, from the founding of the city till the great republic surrounded the Mediterranean and embraced practically all of the known world. The story of the Punic wars is, of course, included. The Romanizing of Europe; the reason for the change from republic to empire, and the method of its accomplishment; Rome's contribution to civilization, such as her roads and her laws; the origin of the Christian church; the Augustan age, and the lasting impression that five hundred years of world empire made on mankind are among the points emphasized. An attempt is made to acquire some familiarity with the great personages, such as Pericles and Cæsar, who played their part in the ancient world. Text, Myers's *Ancient History*, edition of 1904.

12. **The Middle Ages.** This course begins with the fall of Rome and the migration of the Teutonic tribes, thus discovering the very beginnings of the present European nationalities and languages. The work of Charlemagne; feudalism; the Christian church and monasticism; Mohammedanism; the achievements of the Northmen; the hundred years' war; the crusades; the formation of modern governments; the Italian cities, and the renaissance, are among the subjects studied. Special emphasis is given to the history of England and the rise and power of the medieval church. Text, Myers's *The Middle Ages*, revised edition.

13. **Physiology.** This is elementary work, intended to prepare students for the more advanced work given in second year of the agriculture, domestic science and general science courses. As far as possible, models, skeletons and dissecting material are made use of in the classroom. Martin's *Elementary Physiology* is used as a text.

14. **Geography.** Because of recent history, special attention is paid to the geography of the United States, its possessions, products, resources, methods of transportation, etc. Text, state book.

15. **Physical Geography.** Two terms. This subject considers the conformation of the earth's surface, the distribution of land and water, minerals, plants, animals, productions, the atmosphere and the ocean with reference to man's physical environment. These features are presented so as to show in what manner they affect man's way of living and how nature has guided in the development of mankind. State text.

16. **Botany.** The object of the course is to acquaint the young student with the primary essential facts in the life and growth of plants; to enable him to see how plants work and live, and upon what things, in the external world, they depend. As much knowledge of plant structure is required as will render the working processes clear. Practical studies are followed out in such problems as germination and growth, in the uses of the different plant organs, in respiration, transpiration, carbon assimilation, storage and transport of food, building up of

tissue, etc. The effects are studied of unfavorable conditions, such as drought freezing, lack of sunlight, etc. The different ways in which plants increase are examined, and the manner in which they struggle for possession of the soil. In general, in this course, the seed plants are chiefly employed for illustration and experiment, but the other great groups are freely drawn upon, and the general way in which the different groups are related to one another is shown in an elementary manner. Text-book to be selected.

17. **Other Branches of Study.** Instruction is also given in spelling, reading, and writing.



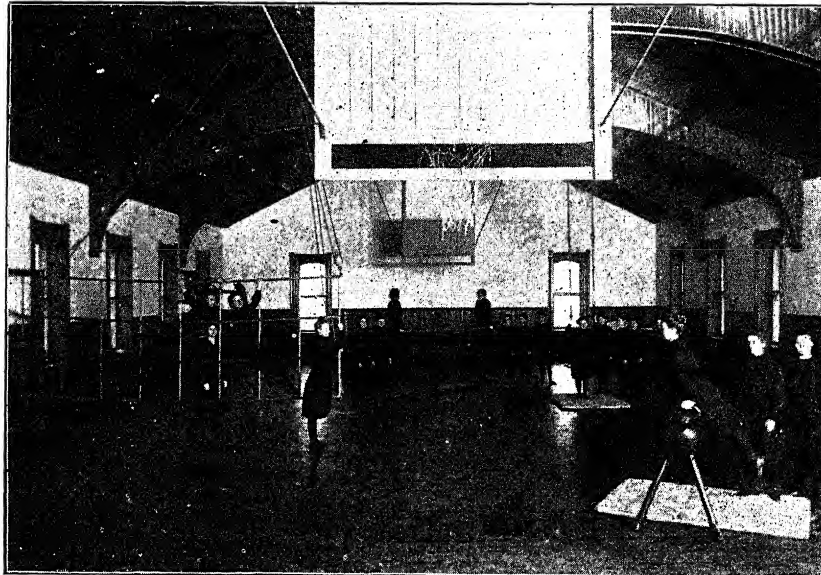
JAYHAWKER STAFF.

Printing.

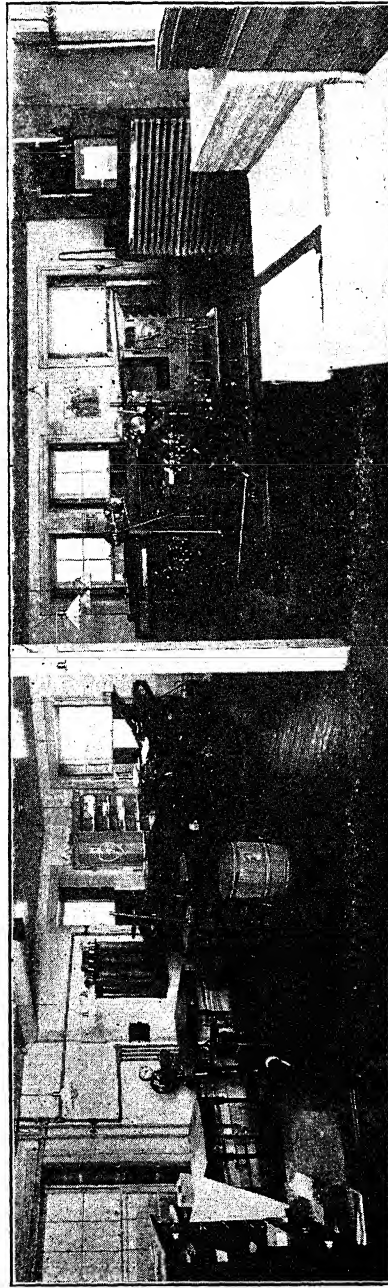
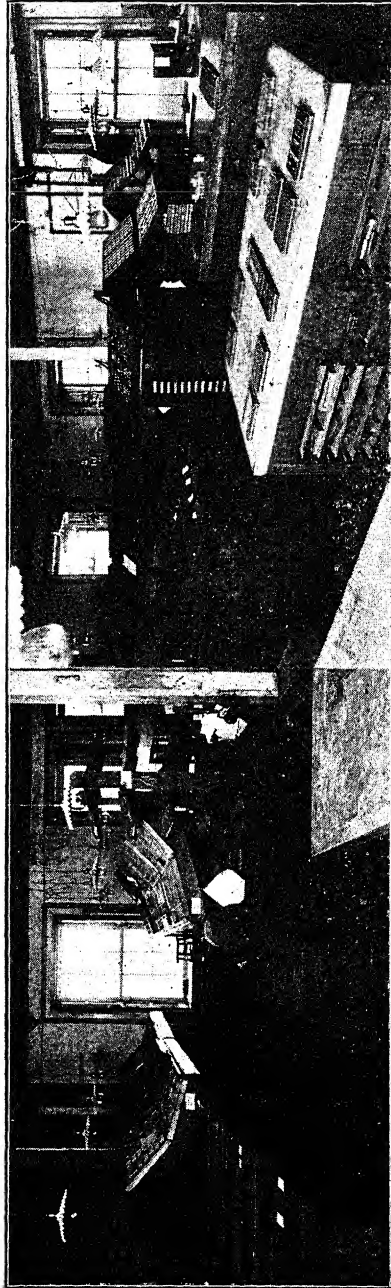
The printing department, in the main building, occupies six large rooms, viz : Superintendent's office, composing-room, pressroom, folding-room or bindery, mailing-room, and storeroom—all well lighted, amply ventilated, and heated by steam.

1. **Instruction.** The lessons embraced may be briefly summarized under these suggestive topics: The elements of news, book and job composition and imposition; proof-reading and correcting; plain and color presswork; embossing; adaptation of various grades of inks and papers; newspaper and magazine folding; mailing; tableting of stationery; and pamphlet stitching and stapling. The instruction is of that character in which individual advancement is always taken into account, and opportunity is extended for individual growth in the knowledge of those principles which are of practical utility in the every-day work of a printing-office. Occasion for the gaining of experience and acquirement of skill is supplied by the weekly publication of the *Industrialist*, the *Students' Herald*, and the monthly *Jayhawker*—all in magazine form; the execution of the wide range of job-printing needed to furnish the various College departments with blanks, lesson outlines, and stationery, and the College societies with programs, notices, etc.—thus furnishing a greater range of work for instruction than is ordinarily found in the average printing-office.

2. **Equipment.** Forty cases of six-point, eight-point and ten-point body type and italics; an assortment of wood and metal job type and brass rule; a Babcock two-revolution, four-roller "Optimus," quarto-medium and eighth-medium Gordon job-presses, and a Monitor wire-stitcher—all run by electricity; type-high mitering, rule-curving and stapling machines; paper-cutter, cabinets, stands, impsing-stones, etc.



WOMEN'S GYMNASIUM.



PRINTING DEPARTMENT.

Public Speaking.

There is perhaps no study of wider application and of more immediate benefit to the student than that of vocal expression. It helps him in his other studies. Every recitation affords him an opportunity of practically applying the rules and principles of correct expression, and, what is of still greater value to him, he soon discovers for himself the fundamental principle that proper expression is always the result of a thorough comprehension of the thought. Shallowness and inaccuracy are almost wholly due to defective reading. For this reason, students are encouraged to form the habit of mentally paraphrasing whatever they read, to the end that they may grasp every detail, relationship, contrast and purpose contained in the subject-matter. This habit, when formed, leads to accuracy of scholarship in any line.

It is not intended that this department should offer an extended course in elocution. There is no intention of fitting students for the stage or platform as professional readers. It may be safely affirmed, however, that the course here offered, taken in conjunction with correlated subjects in the department of English, will prepare the student in this line for all the ordinary demands of an active and useful career.

1. **Public Speaking I.** Second year. Required in all courses. The work in this course is largely analytic. A critical study of the four general types of utterance. Paraphrasing as a preparation for expression. The principle of grouping. Musical properties of speech. Practice in literary and expressional criticism. Carefully selected exercises in vocal technique are given throughout the course. Lessons are assigned, prepared and recited as definitely as in any other study. Text-book, *Vocal Expression and Literary Interpretation*, part I.

2. **Public Speaking II.** Second year. Required in all courses. In this course the work is synthetic. The principles of vocal expression as studied in part I are here applied to literary wholes. Studies in formulation, discrimination, emotion, and volition. The principle of unity and the laws of movement, principality, contrast and climax are studied and applied to numerous selections from standard literature. Studies in tone color, transitions, and descriptive gesture. The purpose is to cultivate taste, judgment and facility in the art of expression.. Instruction is based on *Vocal Expression and Literary Interpretation*, part II.

3. **Public Readings.** Second and third years. Required in all courses. The instruction in this course is individual and consists of private rehearsals. Each student is required to appear in public at least once a year. For this purpose all sophomores, juniors and seniors are assembled in chapel every Saturday afternoon throughout the year.

4. **Orations.** Each senior student is required to prepare an oration for public delivery. These productions must meet all prescribed requirements, be rehearsed, and delivered as outlined in No. 3. By special arrangement, credits in public readings and orations may be obtained for equivalent work done in any of the College literary societies.

Veterinary Science, Physiology, and Bacteriology.

The course in veterinary science is not intended for the training of veterinarians, but to meet the needs of farmers and stockmen in the line of practical nursing, minor surgery, the use of domestic remedies, and a general knowledge of diseases of animals and how they can be prevented.

In physiology, it is the aim to give a thorough knowledge of the structure and functions of the human body and a clear understanding of the laws which are essential to its healthy development and preservation. So far as practicable, this course is preparatory to work in veterinary science and zoology.

In bacteriology, the student is given a thorough and practical knowledge of bacteria, those that are beneficial as well as those that are injurious, and the various methods by which they can be controlled.

Nos. 1 and 2 are required in the agriculture, domestic science and general science courses; No. 3 is required in the agriculture course.

1. **Physiology.** Second year, winter or spring term. Advanced course in human anatomy and physiology; the gross and microscopic structure of the various tissues and organs of the body and their functions; the various changes, physical and chemical, associated with nutrition, and the conditions that favor the healthy development of the body. Martin's Human Body is used as a text-book. This is supplemented by lectures and laboratory work. This must be preceded by elementary physiology, chemistry I, and elementary physics.

2. **Bacteriology.** Third year, fall, winter or spring term. These courses consist of the morphology, classification and physiology of bacteria; relation of external conditions to bacteria development; disinfectants and disinfecting; bacteriological technique, preparation of culture media, staining, isolating and identifying bacteria; general fermentation, putrefaction, and decay; bacterial action on foods, nitrification, ptomaines, toxins, and other bacterial products; hygiene of infective diseases; the preparation and use of antitoxins and vaccines.

The students of all courses are required to take laboratory work, in which they study cultural and microscopical features; the staining of bacteria and preparation of culture media; thus the student becomes perfectly familiar with bacteriological apparatus. Must be preceded by advanced physiology and zoology. Lectures and laboratory work.

3. **Veterinary Science.** Third year, fall term. Comparative anatomy and physiology, with special reference to disease; hygiene of farm animals; nursing; general symptoms and causes of disease; contagious diseases, disinfection, quarantine, and vaccination; parasitic diseases; injurious foods; common diseases of farm animals, with symptoms and treatment; surgery and treatment of wounds; veterinary obstetrics and dentistry. Must be preceded by advanced physiology and chemistry. Text book, Care of Animals, Mayo. Advanced veterinary science and bacteriology are offered as electives in the fourth year.

MEANS OF ILLUSTRATION.

In addition to the stock upon the College farm, the veterinary museum contains Azoux models of man and horse which are dissectible; also, apparatus, instruments, charts, models, and an excellent collection of parasites of domestic animals. There is also a large collection of anatomic specimens, showing healthy and diseased structures. The bacteriological laboratory is well equipped with microscopes and apparatus for bacteriological work, both elementary and advanced.

Beginning in the fall of 1905, the College will offer a four-year course in veterinary science. The first year will be the same as all other courses, the second year practically the same as the second year agriculture course; the third and fourth years to be largely technical.

The Short Courses.

There are large numbers of young people who from lack of means or time are unable to take an extended course of study, but whose usefulness in the world would be much increased by a little special training. Their earning capacity in the household or on the farm is far from what it might be, and they are thus handicapped in the struggle for a livelihood. To bring to this large portion of the "industrial classes," even in small measure, the "liberal and practical education" provided for by the organic act, the College has established certain short courses of study, with practice.

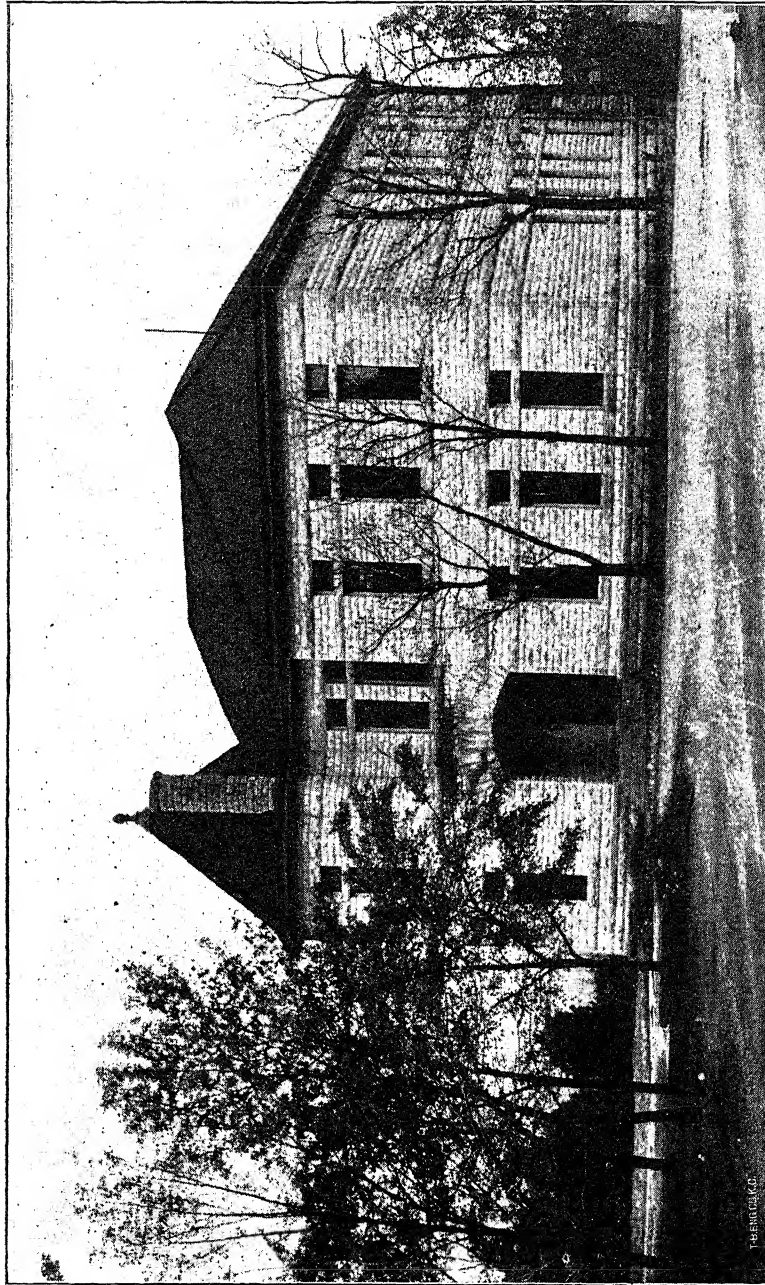
The teaching in these courses, while no whit less accurate than in the others, is upon a different plane. Taking students without scientific or mathematical training, the instruction must be more largely a giving of facts, without an elaboration of the underlying principles which the regular courses afford. The work is intensely practical. Studying such texts as any bright young man or woman can understand, receiving lectures of the same type, and putting into daily practice through industrial exercises the facts and principles learned in the classroom, the student cannot but be greatly benefited. It is hoped, too, that in many cases young people who had thought that they could not afford a four-year course will, by this taste of the advantages and pleasures of an education, be led into the regular courses.

These courses are put at the seasons of the year which seem likely to accommodate the most students, those for young men being given in the winter term, when farm work is more slack, and the young women's course being in the fall. Four such courses are now offered: A dairy course of one winter term; a domestic science course of two fall terms; a farmers' course of two winter terms, and a farm dairy course of one winter term.

Requirements for Admission.

Persons at least eighteen years of age and of good moral character are admitted to these courses as follows:

Persons between the ages of eighteen and twenty-one will be admitted upon presentation of common-school diploma, grammar-school certificate, teacher's certificate, or high-school diploma, or upon passing an examination in the following subjects: Reading, writing, spelling, arithmetic, grammar, geography, physiology, and United States history. Persons over twenty-one will be admitted without examina-



KEDZIE (DOMESTIC SCIENCE) HALL.

tion, but should have sufficient education to enable them to understand the simple text-books used, and to handle readily problems in common and decimal fractions and percentage. They will be required to attend strictly and constantly to their duties, or leave. They have the same free use of the College library that other students have. Owing to the peculiar nature of the work and to the slight degree of preparation which it assumes, *students are required to be present at the very beginning of the course, and those applying later will not be admitted.*

The short courses are in no sense equivalent to the long courses, and no one should take a short course who can take a whole or even a part of one of the long courses. All of the common-school preparatory and freshman branches are taught each term; and nearly all of sophomore studies are taught each term; so that it is possible for one to get nearly all subjects of the first two years by attending during the winter terms only.

Domestic Science Short Course.

Fall Term, Twelve Weeks.

Figures following subjects indicate hours per week.

Lectures and Practice in Cooking.....	15
Sewing.....	15
Drawing.....	5

Winter Term, Twelve Weeks.

Lectures and Practice in Cooking.....	8
Home Nursing.....	2
Physiology and Hygiene.....	5
Vegetable-gardening and Floriculture.....	5
Dressmaking.....	10

First Term.

Lectures and Practice in Cooking. The study of stoves, stove construction, management and fuels are the first topics considered, followed by experiments illustrating the effect of heat upon starch and proteid. The principles are then applied to the cookery of cereals, vegetables, beverages, breads, meats, soups, and simple cake mixtures and puddings. During the term lectures are given by the departments of chemistry and physics illustrating the application of a few fundamental scientific principles to cookery. At stated intervals lectures are also given on home sanitation and household accounts.

Sewing. Pupil makes a model book covering the full course in hand sewing, and consisting of basting, gathering, darning, patching, etc. Machine practice, drafting, cutting and making underskirt and drawers; drafting, fitting and making dress without lining; cutting and making corset cover and night-dress. Materials for the model work will be furnished by the College. Each pupil will furnish her own material for the garments, but if sufficient proficiency is shown in making the first garment, pupils may be allowed to take orders for the others.

Drawing. The work in drawing is especially adapted to the needs of this class of students; it will consist of free-hand and geometrical drawing.

Second Term.

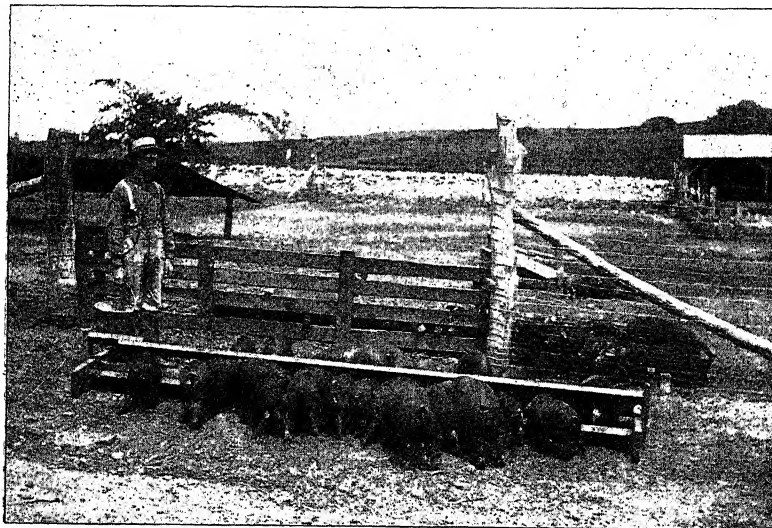
Lectures and Practice in Cooking. Canning, preserving, salads, cakes, pastries, desserts, the planning and serving of meals and invalid cooking are topics considered, accompanied by lectures from the departments of chemistry and physics.

Home Nursing. This implies simple suggestions for the sick-room and its furnishings, and means of adding to the comfort of the sick.

Physiology and Hygiene. Physiology and hygiene of the human body, laws of health and care of the sick.

Vegetable-gardening and Floriculture. The first half of the term is devoted to vegetable growing. Subjects treated include the raising of vegetables for home and for market, with location, soils, manure, tools, irrigation, etc., best suited for crops grown in kitchen- and market-gardens; the construction and manipulation of hotbeds, cold-frames, and winter gardens; the growing of early and late crops, their special treatment, methods of cultivation, planting, transplanting, harvesting, and marketing; a study of varieties suitable to local conditions; and the origin, nature and methods of improvement of vegetables. The last half of the term is devoted to floriculture. Lectures in the classroom are supplemented by practical exercises in the greenhouses and gardens, treating of the propagation and culture of flowers, including the treatment of seeds, cuttings, mixing of soils, potting, repotting, watering, cut flowers, packing, and the many operations that attend amateur and commercial flower gardening.

Dressmaking. Pupil will be taught the use of a dress-cutting system, cutting, fitting and making woollen dress. Pupil must furnish her own material, and cut and make a dress for herself.



DINNER TIME.

Farmers' Short Course.

First Year, Winter Term, Twelve Weeks.

Figures following subjects indicate hours per week.

Crop Production.....	5
Feeds and Feeding	5
Breeds of Live Stock	5
Stock Judging	5
Horticulture.....	5
Carpentry.....	5

Second Year, Winter Term, Twelve Weeks.

Botany.....	5
Elementary Physics	5
Farm Mechanics and Management.....	5
Diseases of Farm Animals	5
Grain Judging.....	5
Blacksmithing or Traction-engines	5

First Year.

Crop Production. A study of the soil—its formation, types or classes, composition, characteristics, uses, physical characters, texture, purposes and problems of tillage, conserving soil moisture, warming, ventilating and draining the soil. The implements of tillage, principles involved in their construction and use. A study of the plant—its relation to soil and climate; its life, growth, and propagation; its root system, principles of seed selection, preparation of seed-bed, methods of cultivation, etc. The fertility of the soil, tillage, manures, fertilizers, and rotation of crops. A study of crops by classes and varieties, as grains, grasses, corn, forage, silage, soiling and root crops; practical methods of culture—saving, feeding, and marketing. Text-book, Bailey's Principles of Agriculture.

Feeds and Feeding. The properties of feed stuffs, and their combination to secure good returns at least cost with products having the desired qualities; effect of feeds on quality of products; construction of farm buildings and appliances to secure the best returns from feed and for saving labor; a study of the feeding on the College farm. Text-book, Henry's Feeds and Feeding.

Breeds of Live Stock. A study of the market types of live stock; history and characteristics and adaptability of the breeds of live stock; selection and judging of live stock according to the official standards; forms as an index to qualities; practice in tracing out pedigrees. Text-books, Shaw's Breeds of Live Stock, Craig's Stock Judging.

Stock Judging. Practice work. Practice in judging chickens, beef cattle, dairy cattle, hogs, horses and sheep according to official standards.

Horticulture. General principles underlying plant growth; structure and functions of the various parts of the plants; nutrition, formation of seeds, etc.; propagation by seedage, cuttage, graftage, and layerage; environment, including the effects of temperature, light, food- and water-supply; possibilities of improvement by cultivation, training, and selection. Text book, Goff's Principles of Plant Culture.

Carpentry. Elementary woodwork in joinery and construction, followed by general woodwork and carpentry; care and use of farm machinery; the building of frame structures, such as stables, piggeries, poultry-houses, ice-houses, and farm creameries, will be given, both by lectures and practical work.

Second Year.

Botany. The laws of plant growth which have a direct bearing upon the raising of grasses, grains, clovers, forage-plants, and weeds; a study of the common fungi that affect cultivated plants; seed testing; practical methods of farm seed-breeding.

Elementary Physics. This course is designed to give the student a knowledge of the fundamental principles upon which the various physical phenomena depend. The course does not provide laboratory practice. Numerous class demonstrations illustrate the various subjects of mechanics, hydrostatics, heat, light, sound, etc.

Farm Mechanics and Farm Management. The first half of the term will be devoted to rural engineering and farm machinery, and will include laying out of the farm, as regards the selecting of building sites, location of farm buildings, division of the farm into fields, and plans for crop rotation; the construction of buildings and works as to principles of construction, plans, specifications and estimates of the cost of farm buildings, and the water supply, sewerage, drainage, roads, fences, etc.

Several lectures will be devoted to the elements of machines, disclosing the principles involved in the use of the lever, evenner, wheel and axle, pulley, inclined plane, screw, and wedge. The several classes of farm machinery will be taken up in their order and studied as to the principles of construction and use of each machine, and attention will be given to the operation, care and repairing of farm machinery, and to the building of machinery sheds.

During the latter half of the term, instruction and practice work will be given in keeping farm accounts, and in the application of business methods to farm operations. Economic questions relating to the employment and management of



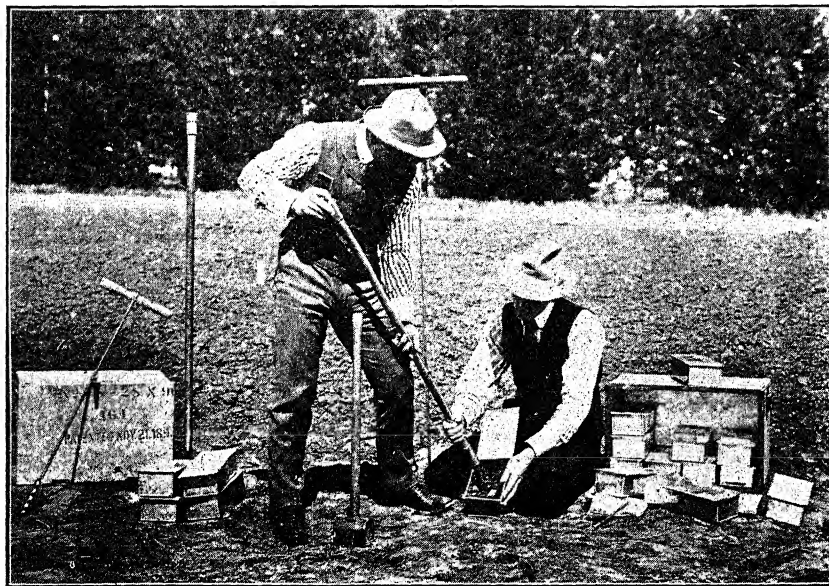
POULTRY JUDGING.

farm help, outlay for farm equipment, buildings, and improvements, the buying of machinery and marketing of crops will receive attention. Some instruction will be given in simple questions of rural law, relating to property, deeds, leases, contracts, water rights, line fences, notes, bills of sale, mortgages, interest, taxes, etc. Text-book, Robert's Farmers' Business Handbook.

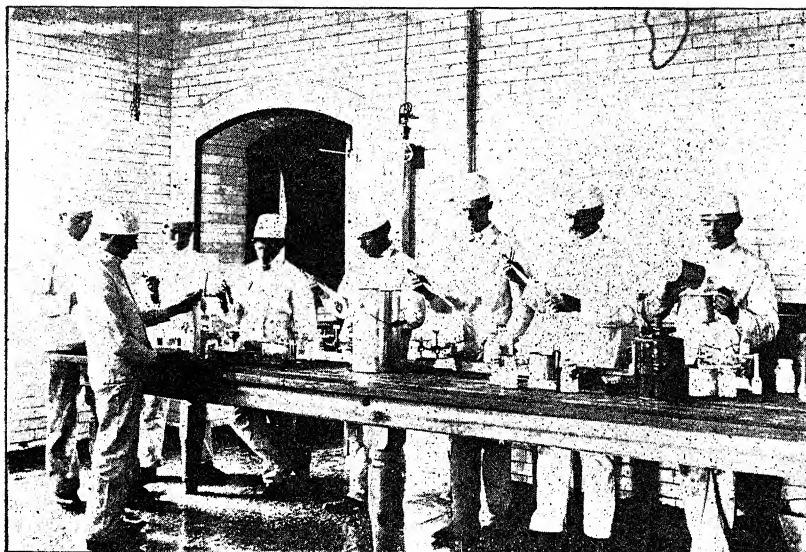
Diseases of Farm Animals. The common ailments of farm animals are discussed, their causes and symptoms explained, and preventives and remedies suggested. Inoculation against blackleg will be performed by the student in this course.

Grain Judging. This will be a continuation of the study of crop production, and will consist mainly of work in the judging-room, in scoring corn and the common cereals according to inspectors' and buyers' standards or according to recognized standards of perfection. Lectures and quizzes will be given, explaining the work in the judging-room. A special study will be made of corn in the selection of seed ears. Very few farmers will select a "good" ear of corn before they have been carefully instructed and trained to note defects and vital points. It is necessary to know the characteristics of a breed and its recognized standard of perfection before one can intelligently select breeding animals. This is true also of a variety of corn or wheat, and the improved qualities of higher protein, greater vitality and larger productiveness which may be bred into corn by careful and intelligent selection should greatly increase the value of this crop to the farmer.

Blacksmithing. Forging and welding, construction of singletree clips, wagon ironing, clevises, horseshoes, sharpening and tempering plows and tools, general repair work. Advanced work is also offered in the care and management of boilers and engines. If the student desires, he can make a forge and set of blacksmith tools to take home with him, paying only for the iron used.



SAMPLING SOILS.



DAIRY LABORATORY.

Farm Dairy Course.

Winter Term, Twelve Weeks.

Figures following subjects indicate hours per week.

Dairying	5
Crop Production	5
Feeds and Feeding	5
Breeds of Live Stock	5
Stock Judging	5
Carpentry	5
Dairy Practice	5

Dairying. Milk—its secretion, nature, and composition; causes and conditions influencing the quantity and quality of milk; testing of glassware used in the dairy; testing of the quality of milk, cream, buttermilk, and skim-milk. Text-book, Wing's Milk and its Products.

Dairy Practice. Practice in handling milk and its products from the time it leaves the cow until it is marketed as butter, cheese, or sanitary milk. The dairy-room is fully equipped with hand and power separators, Babcock tests, churns, and butter-workers, aerators, heaters, sterilizers, milk and cream vats, factory-cheese apparatus, Mann's acid tests, and other needed apparatus. Many manufacturers have volunteered to loan us machinery, so that the dairy students may test the work of the different modes of separators, churns, etc.

The remainder of this course is the same as the first year of the farmers' short course.

Dairy Course.

Winter Term, Twelve Weeks.

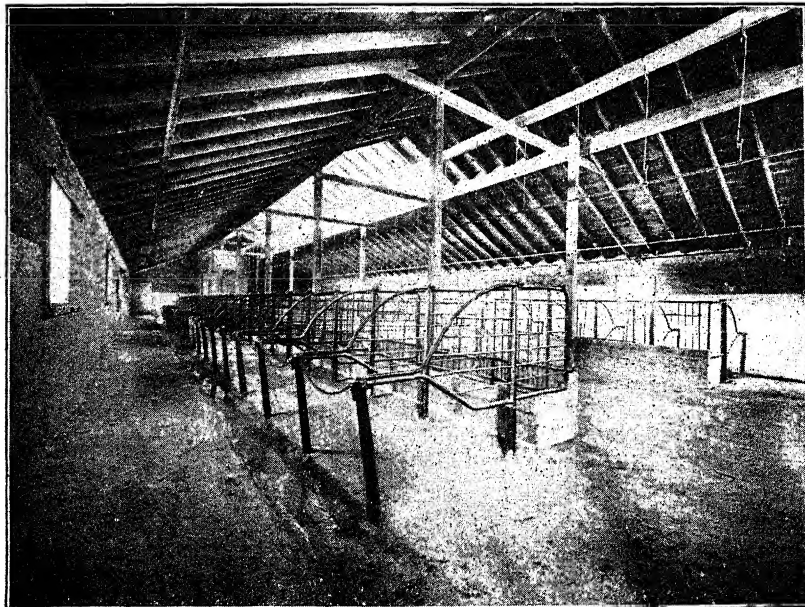
Figures following subjects indicate hours per week.

Dairying	5
Feeds and Feeding	5
Diseases of Dairy Animals	2½
Bookkeeping	2½
Butter and Cheese-making	5
<i>Dairy Practice</i>	10
<i>Boiler and Engine</i>	5

Dairying. Milk—its secretion, nature, and composition; causes and conditions influencing the quantity and quality of milk; testing of glassware used in the dairy; testing of the quality of milk, cream, buttermilk, and skim-milk. Text-book, Wing's Milk and its Products.

Feeds and Feeding. Properties of common feed stuffs; their effect on the character and yield of milk and butter; adaptation and combination of feeds to meet the needs of dairy cows; effect of feed on quality of product; preparation of feeds and methods of feeding; compounding of dairy rations to secure the best yield at least cost. Study of the feeding of the College dairy herd; the dairy farm and care and management of dairy herd. Text book, Henry's Feeds and Feeding.

Diseases of Dairy Animals. The common ailments of calves and dairy cows are discussed and their causes and symptoms explained, remedies and preventives suggested, all from a practical farmer's standpoint. During the dairy school the College herd will be tested with tuberculin and the students taught how to make the test.



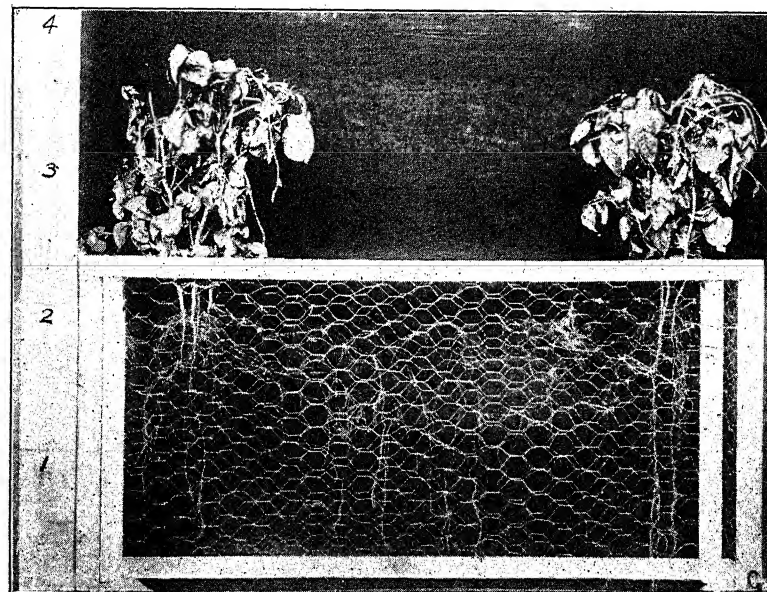
DAIRY BARN.

Bookkeeping. Practice in bookkeeping that will enable the student to understand the underlying principles, followed by training in keeping books for farm, dairy and creamery accounts.

Butter- and Cheese-making. The handling of the milk for the market and for butter-making, including milking, straining, aerating, cooling, preserving, and shipping; testing; creaming of milk by the separator; cream-ripening and butter-making. Construction and management of skimming stations and creameries; methods of handling farm-separator cream; methods of dealing with patrons. The handling of milk for cheese-making; contamination, aeration, enzymes, rennet, making of cheddar cheese, cutting and heating curd, drawing whey, dripping and milling the curd, salting and pressing the curd, curing and packing the finished cheese, construction of cheese factories. Swiss, Limberger, Edam and cottage cheese. Text books: Decker's Cheese-making, Wing's Milk and its Products, Farrington and Woll's Testing Milk and its Products. Lectures.

Dairy Practice. Practice in handling milk and its products from the time it leaves the cow until it is marketed as butter, cheese, or sanitary milk. Students may choose either creamery, butter-making, cheese-making, or private dairying. Thorough instruction and practice will be given in all three of these lines. The dairy-room is fully equipped with hand and power separators, Babcock tests, churns and butter-workers, aerators, heaters, sterilizers, milk and cream vats, factory-cheese apparatus, Mann's acid tests, and other needed apparatus. Many manufacturers have volunteered to loan us machinery, so that the dairy students may make test of the work of the different makes of separators, churns, etc.

Boilers and Engines. Lectures and practice in the firing of boilers, care and running of engines, pumps, etc.; practice in shops.



ROOTS OF COWPEAS 65 DAYS AFTER PLANTING.

Young Men's Christian Association.

"See that he (the college student) is in the fullest sense a man and a good man."—PRESIDENT ROOSEVELT.

"Character is of more importance than education."—PRESIDENT SCHURMAN, *of Cornell University*.

"The young men going to college will be the leaders of society in the future. If they leave the college as earnest Christians, they will exert good influences throughout their lives."—HON. JAMES WILSON, *United States Secretary of Agriculture*.

"It is a holy mission to reform a boy or man after he has gone wrong, but it is still better to save him from going wrong."—HON. ALBERT B. CUMMINS, *Governor of Iowa*.

OBJECT. The Young Men's Christian Association is organized for service. Any young man in the College who is of good moral character may belong. Although its distinct function is religious, it is not exclusively such. Active membership is limited to those belonging to evangelical churches, while those young men who are not church members but who believe in good, clean living may join as associate members.

HEADQUARTERS. In the fall of 1903 the association rented what is known as Park Place, situated at the corner of Ninth and Fremont streets. This building contains twenty-eight rooms for students, with bath-rooms, etc. It is heated by steam and lighted by electricity. In one end of the building there is a large, well-lighted parlor, used by the association for its regular Sunday afternoon meetings, for a reading- and game-room, and for social headquarters. This room is open to all students of the College. The building will be used by the association again in 1905-'06.

NEW-STUDENT WORK. New students are met at trains, taken to headquarters, and assisted to find rooms. A handbook published by the two associations and containing valuable information to the new student is given to each one. At the College, in the main building, an information bureau is kept during the first few days of College. The parlors of the Young Men's Christian Association house are wide open for each new student. Every evening of the opening days special amusements are offered. A "stag" social is given to all new men on one of the first evenings of the term.

EMPLOYMENT BUREAU. Students are assisted to find work free of



Y. M. C. A. CABINET.

charge. This work is under the supervision of the general secretary, assisted by an employment bureau committee.

BIBLE STUDY. The association offers three or four Bible study courses. A regular systematic course is studied. The classes meet once a week, under student leaders. Three hundred and eighty men were enrolled in twenty-eight different classes during the past year. A force of forty men will prepare themselves during the summer to lead classes during 1905-'06. The plans of the Bible study committee call for 500 men.

MISSION STUDY. Several courses in the study of missions will also be offered by the association. Many men have received a broad general knowledge of foreign lands by this study.

REGULAR MEETINGS. The association holds its regular meetings on Sunday afternoon, in the parlors of headquarters. These meetings are generally led by different members of the Faculty, by business men down town, or by outside speakers. A midweek prayer-meeting led by students is held on Wednesday evenings.

SOCIAL AND RECEPTIONS. From time to time socials and receptions are held. These serve to draw the men closer together. At the beginning of the fall and winter terms there is given a social especially planned for the new students.

CORRESPONDENCE. The association employs a general secretary on full time. Any prospective student who desires information not contained in this catalogue may feel free to write to him. Address, General Secretary of the Young Men's Christian Association, Manhattan, Kan.

Young Women's Christian Association.

The American Student Young Women's Christian Association consists of 450 student associations, with a total membership of 27,110, and with an enrolment of 16,349 in Bible classes during the year 1904-'05. In many institutions the enrolment has been doubled during the past year, and this has been true of our association.

What college organization offers a better training for the responsibilities of life than the Young Women's Christian Association? It is based upon the fundamental principles of Christianity, and seeks to create a sentiment for all that is pure and true and noble. It seeks to organize and unite all the Christian forces of the College for practical work. It is composed of the best young women in college—those who are leaders in their studies. It is strongly supported by the members of the Faculty, Board of Regents, and by the students in general

Some of the important features of the work in our College:

1. The fall campaign committee, who meet new girls at the train and assist them in getting located and started right in college.
2. The lookout committee, who care for those who may be ill or need special care.
3. Weekly devotional meetings, which are a source of inspiration to higher ideals.
4. Prayer circles, Bible study and mission study classes, which broaden the view of Christian work.
5. Opportunity for social development through socials or receptions given each month by the social committee.
6. Opportunity for doing active Christian work among College girls.
7. A general secretary, the employed officer of the association, and the advisory committee, which consists of Faculty ladies and others especially interested in the work, sustain a general advisory relation to the officers of the association and assist them in broadening and carrying out their plans of work.
8. A Young Women's Christian Association home is maintained, where all girls will be welcomed. Should no one meet you when you arrive in the city, come to the home, where some one will be ready to assist you.

All young women contemplating attending college are invited to write to the general secretary in regard to the association or for information concerning the College not found in the catalogue.



Y. M. C. A. PARLOR.

General Information.

Terms of Admission.

Persons over fourteen years of age will be admitted in any of the following ways:

1. Kansas teacher's certificate, provided no subject is below seventy per cent.
2. Diploma received on completion of a county course of study.
3. Certificate of passing the grammar grade or diploma from the high school of any city or county.
4. Pass a satisfactory examination in reading, spelling, writing, geography, arithmetic, United States history, English grammar, and physiology.

Persons over eighteen years of age will be admitted to the preparatory classes if unable to pass the common-school branches.

Full admission to the first year, in addition to the common-school branches—reading, spelling, writing, geography, arithmetic, United States history, English grammar, and physiology—requires book-keeping, advanced English grammar, English readings, English composition, algebra through progressions, physical geography, elementary botany, ancient and medieval history. (See Preparatory Department, page 106.)

It is quite possible for a good student who enters somewhat behind to make up his deficiency in a year or two and graduate in four years.

All of the preparatory and first-year studies are taught each term, and nearly all of the second year subjects; so that a person may enter at the beginning of any term and find work suited to his advancement.

Examinations for admission are held at the beginning of each term. Applicants at other times during the school year have special examinations. These examinations are chiefly written, and a grade of seventy per cent., at least, must be obtained to pass a study.

On entrance, applications for advanced standing in the courses or for credit for certain studies in the courses may be made to the chairman of the committee on examinations. After entrance, such applications should be made to the professor in charge of the study. In any case the applicant will be required to pass such an examination as the professor in charge deems necessary.

Examinations.

Examinations for admission are held at the beginning of each term, as shown in the calendar of the college year. Applicants at other times during the school year have special examinations. These examinations are chiefly written, and a grade of seventy per cent., at least, must be obtained to pass a study.

Examinations in the courses are held twice each term, as announced in the calendar. The results of the examinations, marked on a scale of 100, are combined with the grades of the preceding daily exercises into a grade for the period. Grades reported to the Secretary for record are made up by giving the midterm record a value of one-third and the record for the last half of the term a value of two-thirds. For passing a study, the mean grade so calculated, and also the grade for the last half of the term, must be at least seventy. Any student receiving less than a passing grade on two or more studies may be required to drop back or withdraw from the College. Any student may receive a certificate of standing, upon leaving College at the close of a term.

Students deficient in entrance studies must make good such deficiencies before entering on the work of the second year. Students are not catalogued in the junior class unless all deficiencies of the preceding years are provided for. Candidates for graduation must make good all deficiencies before entering on the work of the spring term of the fourth year. No student is considered as a candidate for graduation who, after the opening of the fall term, is deficient more than three full studies in addition to regular work. Extra work is not allowed to any student who failed in any branch the preceding term, or whose average grade for all branches was less than eighty.

After entering college, students are allowed special examinations only upon recommendation of the professor in charge, and by permission of the committee on assignments. Permission for examination in studies not pursued with a class must be obtained at least two months before the examination is held. All such examinations are held under the immediate supervision of the professor in charge, and are thorough and exhaustive. Students desiring credit for work done elsewhere must bring certificates and catalogues to show that the work done is equivalent to ours. The right is reserved to cancel any credits if the work of the student in succeeding branches shows insufficient preparation.

Regulations in Regard to Substitutions.

With the seven regular courses that the College now offers, most of the requirements of students are met. For one reason or another, however, some students find it necessary or desirable to substitute

something else for the work that their respective courses would require. To place such substitutions on a systematic basis, the following regulations have been adopted by the Faculty :

1. Substitutions shall, as far as practicable, give training similar to that of the work displaced.
2. No student shall be allowed a substitution for work in which he has failed.
3. Unless made necessary by the acts of the Board of Regents or of the Faculty, substitutions shall not be allowed: (*a*) To students who are below the third year; (*b*) to students who have failed in any study of the two terms' work immediately preceding; (*c*) unless arranged for in advance.
4. Students desiring to substitute other work for any requirement in their respective courses of study must present written requests to the committee on assignments.
5. When a request for substitution is made by any student, the committee on assignments shall consult with all of the professors whose work is touched by the proposed substitution, and if unable to agree with them the case shall be submitted to the Faculty.
6. All substitutions arranged by the committee on assignments shall be reported to the Faculty by posting on the Faculty bulletin-board, and if not objected to within one week shall be reported to the Secretary for record in the students' register.

General Duties and Privileges.

Generally good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged to the formation of sound character by both precept and example, and expected, "upon honor," to maintain a good repute. Failure to do so is met with prompt dismissal. No other rules of personal conduct are announced.

Classes are in session every week-day except Monday, and no student may be absent without excuse. Students cannot honorably leave the College before the close of a term, unless excused beforehand. A full and permanent record of attendance and scholarship shows to each student his standing in the College.

Chapel exercises occupy fifteen minutes before the meeting of classes each morning, and absence from them is noted.

There are nine prosperous literary and scientific societies, which meet weekly in rooms set apart for their use—the Alpha Beta and Franklin, open to both sexes, and the Ionian and Eurodelphian for young women. The Webster, the Hamilton, the Agricultural Association, the Engineering Association and the Architectural Club admit to membership young men only.

At various times during the year the College halls are opened for social and literary entertainments for the whole body of students, or for classes. For the last eight years the students have organized and presented courses of entertainments, which have been of high value, and of moderate expense to each individual.

Earning One's Way.

The courses of study are based upon the supposition that the student is here for study, and a proper grasp of the subjects cannot be obtained by the average student unless the greater part of his time is given to college duties. Students in straitened circumstances are encouraged and aided in every way possible, but unless exceptionally strong, both mentally and physically, are advised to take lighter work by extending the course, if obliged to give any considerable time to self-support. As a rule, a student should be prepared with means for at least a term, as some time is necessary for one to make acquaintances and learn where suitable work may be had.

The lines in which employment may be had are various. The College itself employs student labor to the extent of about \$1200 per month, the rate paid being ten cents per hour. This work is on the farm, in the orchards and gardens, in the shops and printing-office, for the janitor, etc. As one's ability and trustworthiness become established, more responsible and more remunerative work may be had, to a limited extent. Many students obtain employment in the town; some work for their board in families in town or in the country near the College. Labor is everywhere respected, and the student who earns his way is honored by all. He will necessarily have little time for the lighter pleasures that may be incident to college life.

Expenses.

TUITION IS FREE. An incidental fee of \$3 per term will be charged all students from Kansas. Students from outside of Kansas will be charged an incidental fee of \$10 per term, and an enrolment fee of \$10. Each student must present receipt for incidental fee before enrolment in classes. Rooms, board and washing are not furnished by the College. Board, with furnished room, can be procured in private families at from \$2.50 to \$3.50 per week, or table board in student clubs from \$2 to \$2.25 per week. Furnished rooms, without board, can be obtained at from \$3 to \$5 per month. Some students board themselves at even less cost, and rooms for the purpose can be obtained at a rent of from \$1 to \$3.50 per month. Washing costs from 50 cents to 75 cents per dozen. Books cost about \$3 per term. Young men of the freshman and sophomore years will be required to have military uniforms costing about \$12, and young women of the

freshmen year must have a physical-training suit costing about \$3. Ordinary expenditures, aside from clothing and traveling expenses, range from \$100 to \$200 per year. No institution in the state furnishes an education at less cost to the student.

Business Directions.

General information concerning the College and its work, studies, examinations, grades, boarding-places, etc., may be obtained from the President or the Secretary.

Questions, scientific or practical, concerning the different departments of study or work, may be addressed to the several professors and superintendents.

Loans upon school-district bonds are to be obtained from the State School-fund Commission.

Bills against the College should be presented monthly, and, when audited, are paid from the office of the state treasurer.

All payments of principal and interest on account of bonds or land contracts must be made to the state treasurer, at Topeka. Applications for extension of time on land contracts should be sent to the Secretary of the Board of Regents, at Manhattan.

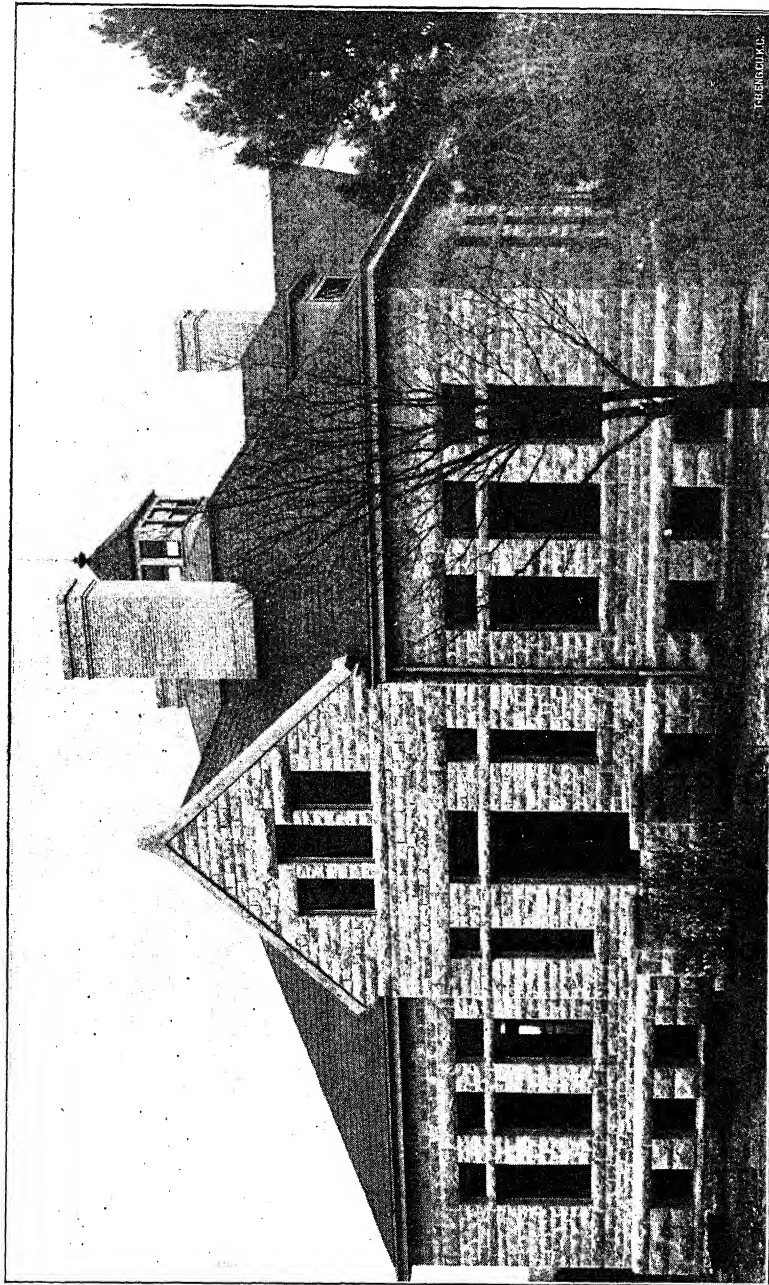
The *Industrialist* may be addressed through Pres. E. R. Nichols, managing editor.

Donations for the library should be sent to the Librarian; donations for the museum, to the curator of the museum.

Applications for farmers' institutes should be made as early in the season as possible, addressing Institute Department, Kansas State Agricultural College.

Applications for the publications of the Experiment Station, and general inquiries concerning its work, should be addressed to Agricultural Experiment Station; but correspondence concerning any special line of investigation should be sent to the member of the Council in charge of the work concerning which information is desired.

All half-tones in this catalogue were made from photographs taken by Dr. S. C. Orr, of Manhattan, who has done all the College view work for the last six years.



DAIRY HALL.

Students.

Graduates.

Candidate for Master's Degree. 1905.

Walter E. Mathewson, B. S. '01..... *Chemistry, Physiology.*
Topeka, Shawnee county.

In Course Leading to Master's Degree.

Albert Edwin Blair, B. S. '99..... *Architecture, Mathematics.*
Quenemo, Osage county.
Claude Carroll Cunningham, B. S. '03.. *Agronomy, Soil Formation.*
Manhattan, Riley county.
Trena Dahl, B. S. '01..... *Domestic Science, Chemistry.*
Webber, Jewell county.
S. B. Durham, B. S. '04 (Okla. Agr. Coll.) *Dairying, Animal Husbandry.*
Elgin, Chautauqua county.
Josephine Finley, B. S. '00..... *Domestic Science, Bacteriology.*
Manhattan, Riley county.
Oscar Hugo Halstead, B. S. '95..... *Mathematics, Physics.*
Manhattan, Riley county.
James William Harner, B. S. '00..... *Bacteriology, Dairying.*
Manhattan, Riley county.
Alice M. Loomis, B. S. '04..... *Domestic Science, Chemistry.*
Manhattan, Riley county.
Roland McKee, B. S. '00..... *Horticulture, Botany.*
Blue Rapids, Marshall county.
Bessie A. Mudge, B. S. '03..... *Domestic Science, Bacteriology.*
Manhattan, Riley county.
K. Elizabeth Sweet, B. S. '04..... *Chemistry, Bacteriology.*
Burlington, Coffey county.
Elsie Lucile Waters, B. S. '98..... *Domestic Science, Chemistry.*
Manhattan, Riley county.

In Advanced Work Not Leading to a Degree.

Loua Adelle Blachly, B. S. '01..... *Domestic Science, Music.*
Manhattan, Riley county.
Maude Mildred Coe, B. S. '02..... *German, Music.*
Yates Center, Woodson county.
Minerva (Blachly) Dean, B. S. '00..... *Music.*
Manhattan, Riley county.
Robert E. Eastman, B. S. '00..... *Botany, Music.*
Manhattan, Riley county.
Hetty G. Evans (Mass. Nor. Art Sch.), *Entomology, German.*
Manhattan, Riley county.
Henrietta Mattie Hofer, B. S. '02..... *German, Music.*
Manhattan, Riley county.
Charles Franklin Kinman, B. S. '04.... *Entomology, Botany.*
Clay Center, Clay county.
Anna Louella O'Daniel, B. S. '03..... *Domestic Science, German, Music.*
Manhattan, Riley county.
Alice May Ross, B. S. '03..... *Music, German.*
Manhattan, Riley county.

- Sallie Maud Smith, B. S. '04.....*Domestic Science, Music.*
 Manhattan, Riley county.
 Harold Addison Spilman, B. S. '03.....*German, Forestry.*
 Manhattan, Riley county.
 Helen B. Thompson, B. S. '03.....*German.*
 Wamego, (Wabaunsee county).
 Retta Womer, B. S. '04.....*Domestic Science, Bacteriology,*
 Womer, Smith county. *Physiology.*

SENIORS.

Name.	Post-office and county (or state).
Harvey Adams,	Ozawkie, Jefferson.
Edward E. Adamson,	Altamont, Labette.
Elva Veola Akin,	Manhattan, Riley.
Pearle Akin,	Manhattan, Riley.
Nellie Wilhelmina Baird,	Marquette, McPherson.
Walter Raymond Ballard,	Baxter Springs, Cherokee.
Jessie Mary Ballou,	Delphos, Ottawa.
Frank Everett Balmer,	Woodston, Rooks.
Asa William Barnard,	Manhattan, Riley.
Atwood N. H. Beeman,	Manhattan, Riley.
Herbert F. Bergman,	Manhattan, Riley.
C. Paul Blachly,	Manhattan, Riley.
Helen Elizabeth Bottomly,	Manhattan, Riley.
Walter Brant,	Wichita, Sedgwick.
William Wilkinson Buckley,	Clyde, Cloud.
Harvey A. Burt,	Bronson, Bourbon.
Eva Maggy Burtner,	Manhattan, Riley.
Ray Arthur Carle,	Topeka, Shawnee.
August Belmont Carnahan,	Douglass, Butler.
Albert F. Cassell,	Beverly, Lincoln.
Joseph Griffith Chitty,	Frankfort, Marshall.
L. Ethel Clemons,	Manhattan, Riley.
Mary Margaret Cole,	Manhattan, Riley.
Andrew D. Colliver,	Galva, McPherson.
Mary P. Colliver,	Galva, McPherson.
Gertrude Matilda Conner,	Mitchell, Rice.
Perry Alfred Cooley,	Manhattan, Riley.
Forrest Leslie Courter,	Downs, Osborne.
Bertha Cowles,	Sibley, Douglas.
Charles William Cummings,	Wilmore, Comanche.
Jules Cool Cunningham,	Glasco, Cloud.
Mamie Grace Cunningham,	Delphos, (Cloud).
Edith Nellie Davis,	Manhattan, Riley.
Guy R. Davis,	Kansas City, <i>Missouri.</i>
Minnie Estella Deibler,	Manhattan, Riley.
Ula May Dow,	Manhattan, Riley.
Olive B. Dunlap,	Leonardville, Riley.
Mary Josephine Edwards,	Emporia, Lyon.
Earl Joy Evans,	Jewell, Jewell.
William K. Evans,	Colby, Thomas.
Scott Stuart Fay,	Wilsey, Morris.

Name.	Post-office and county (or state).
Lathrop Weaver Fielding,	Manhattan, Riley.
Lena Finley,	Manhattan, Riley.
Frances Walker Fish,	Manhattan, Riley.
Charles Wesley Fryhofer,	Randolph, Riley.
Robert Anson Fulton,	Beloit, Mitchell.
George W. Gasser,	Manhattan, Riley.
William H. Goodwin,	Detroit, Dickinson.
Herbert Revere Groome,	Manhattan, Riley.
Margaret Helen Haggart,	Topeka, Shawnee.
Otto Albert Hanson,	Marquette, McPherson.
William H. Harold,	Manhattan, Riley.
Lola May Harris,	Harveyville, Wabaunsee.
Henry P. Hess,	Manhattan, Riley.
Orley Justin Hillyer,	Manhattan, Riley.
Frederick Earl Hodgson,	Little River, Rice.
Jessie May Hoover,	Topeka, Shawnee.
Charles Fredrick Johnson,	Leonardville, Riley.
James Henry Johnson,	Manhattan, Riley.
Winifred Mae Johnson,	Solomon Rapids, Mitchell.
George Henry Kellogg,	Manhattan, Riley.
Mildred I. Kirkwood,	Marysville, Marshall.
Nina H. Kirkwood,	Marysville, Marshall.
George Otto Kramer,	Wabaunsee, Wabaunsee.
William C. Lane,	Burlington, Coffey.
Daniel Andrew Logan,	Manhattan, Riley.
Ed. Logan,	Manhattan, Riley.
Rhoda C. McCartney,	Garden City, Finney.
Nellie Reeder McCoy,	Meriden, Jefferson.
Freide E. Marty,	Merriam, Johnson.
Ernest Wilson Matherly,	Manhattan, Riley.
Richard Meyer,	Riley, Riley.
Mary Mudge,	Manhattan, Riley.
Lewis J. Munger,	Hollis, Cloud.
Rachel Gertrude Nicholson,	Manhattan, Riley.
Jens Nygard,	Denmark, Lincoln.
Nell Paulsen,	Whiting, Jackson.
Leonard Marion Peairs,	Lawrence, Douglas.
Luther B. Pickett,	Emporia, Lyon.
Myron A. Pierce,	Manhattan, Riley.
Charles Holcomb Popenoe,	Topeka, Shawnee.
Fanny E. Reynolds,	Cawker City, Mitchell.
Arthur J. Rhodes,	Manhattan, Riley.
Emmit D. Richardson,	Glenelder, Mitchell.
Eva May Rickman,	Manhattan, Riley.
Kate L. Robertson,	Manhattan, Riley.
Garfield Shirley,	Newman, Jefferson.
Walter Emory Smith,	Lebo, Coffey.
Crete Spencer,	Manhattan, Riley.
William Wesley Stanfield,	Chanute, Neosho.
Blanche Stevens,	Humboldt, Allen.
Effie L. Stewart,	Humboldt, Allen.

Name.	Post-office and county (or state).
Mary Catherine Strite,	Manhattan, Riley.
Jessie A. Sweet,	Stockdale, Riley.
Charles Bartholow Swift,	Williamsburg, Franklin.
Charles L. Thompson,	Leon, Butler.
John Bert Thompson,	Leon, Butler.
Roger S. Thompson,	Osborne, Osborne.
Claude B. Thummel,	Axtell, Marshall.
Alonzo F. Turner,	Oakley, Logan.
Marcia Elizabeth Turner,	Rock Creek, Jefferson.
Grace E. Umberger,	Hymer, Chase.
Harry Umberger,	Hymer, Chase.
Fred Van Dorp,	Topeka, Shawnee.
Rebecca Rees Washington,	Manhattan, Riley.
Earl Wheeler,	Bridgeport, Saline.
Inez Wheeler,	Bridgeport, Saline.
Clarence H. White,	Burlington, Coffey.
Wayne White,	Burlington, Coffey.
William J. Wilkinson,	Manhattan, Riley.
Edgar M. Wilson,	Eatonville, Cowley.
Frederick W. Wilson,	Hill City, Graham.
George Heber Wilson,	Winfield, Cowley.
George Wolf,	Manhattan, Riley.
(Mrs.) Grace Enfield Wood,	White City, Morris.
Jay G. Worswick,	Oskaloosa, Jefferson.
Earnest A. Wright,	Smith Center, Smith.

JUNIORS.

Kate Alexander,	Welda, Anderson.
Harvey Wiltson Baker,	Marvin, Phillips.
Julia Susanna Bayles,	Manhattan, Riley.
Jesse N. Bealey,	Morrill, Brown.
Raymond Russell Birch,	Manhattan, Riley.
Herbert Jefferson Bottomly,	Manhattan, Riley.
Roy C. Bowman,	Oxford, Sumner.
Edward Brant,	Wichita, Sedgwick.
Flora Edna Brenner,	Manhattan, Riley.
Frank E. Brown,	Highland, Doniphan.
Fred Wallace Caldwell,	Garnett, Anderson.
John Willard Calvin,	Manhattan, Riley.
Robert More Campbell,	Wamego, Pottawatomie.
Stella Campbell,	Goodrich, Linn.
Will Ward Campbell,	Emporia, Lyon.
Torje Carlson,	Almena, Norton.
Robert Archer Cassell,	Manhattan, Riley.
James Hamilton Cheney,	Great Bend, Barton.
Florence Christina Christensen,	Randolph, Riley.
Roy H. Clark,	Newton, Harvey.
Edith E. Coffman,	Manhattan, Riley.
William Irving Coldwell,	Oxford, Sumner.
Amy Cole,	Manhattan, Riley.
Archie Conner,	Lyons, Rice.

Name.	Post-office and county (or state).
Ruth Cooley,	Manhattan, Riley.
Mary Copley,	Manhattan, Riley.
Alson J. Cowles,	El Dorado, Butler.
Edgar Andrew Cowles,	El Dorado, Butler.
Ethel Cowles,	Sibley, Douglas.
Everet William Cudney,	Belpre, Edwards.
Margaret Ruth Cunningham,	Glasco, Cloud.
Winifred Anna Dalton,	Saint George, Pottawatomie.
Dickie Davies,	Green, Clay.
Ernest Davis,	Parsons, Labette.
Jay L. Dow,	Manhattan, Riley.
Odessa Della Dow,	Manhattan, Riley.
Arthie Aileen Edworthy,	Solomon, Dickinson.
Leonard Roscoe Elder,	Osage City, Osage.
Harriet Maria Esdon,	Olsburg, Pottawatomie.
Smith Faris,	Denison, Jackson.
Ernest Clifford Farrar,	Beattie, Marshall.
Minter Farrar,	Axtell, Marshall.
Arba C. Ferris,	Conway, McPherson.
M. Edith Forsyth,	Dwight, Morris.
Christian A. Gabelman,	Fairport, (Ellis).
Olga Effie George,	Manhattan, Riley.
Charles A. Gilkison,	Larned, Pawnee.
William Thomas Gilliford,	Olsburg, Pottawatomie.
Lewis M. Graham,	Turon, Reno.
Rennie Greene,	Lincoln, Lincoln.
Elbert Ernest Greenough,	Bennington, Ottawa.
May Lucetta Griffing,	Manhattan, Riley.
David H. Gripton,	Smith Center, Smith.
Mabel Estelle Groome,	Williamsburg, Franklin.
Roswell Leroy Hamaker,	Manhattan, Riley.
Boline Hanson,	Jamestown, (Republic).
Daisye Ina Harner,	Manhattan, Riley.
Raymond D. Harrison,	Jewell, Jewell.
Clarence L. Hawkinson,	Marquette, McPherson.
Leslie Eugene Hazen,	Centralia, Nemaha.
Harry Russell Heim,	Lincoln, Lincoln.
Vern E. Hess,	Almena, Norton.
Benoni Hoffhines,	Marquette, McPherson.
Gertrude Elma Hole,	Manhattan, Riley.
Harvey B. Hubbard,	Beloit, Mitchell.
Nellie Dorothy Hughes,	Topeka, Shawnee.
William Harry Imes,	Aurora, Cloud.
Helen C. Inskeep,	Manhattan, (Pottawatomie).
Edward M. Johnston,	Caldwell, Sumner.
Fredric Arthur Kiene,	Valencia, Shawnee.
Clarence Brady Kirk,	Burr Oak, Jewell.
Clyde Livingston Lewis,	Kansas City, Wyandotte.
Percy E. Lill,	Mounthope, Sedgwick.
Laura Lillian Lyman,	Manhattan, Riley.
Charles Wilbur McCampbell,	Manhattan, Riley.

Name.	Post-office and county (or state).
Fred B. McKinnell,	Maize, Sedgwick.
Cora E. McNutt,	Ottawa, Franklin.
Alma McRae,	Goodrich, Linn.
Henry Greenleaf Maxwell,	Kansas City, Wyandotte.
Alvan Taylor Munger,	Manhattan, Riley.
Verda Ellen Murphy,	Manhattan, Riley.
Ruth Emma Neiman,	Whitewater, Butler.
Ross N. Newland,	Groveland, McPherson.
John J. Peckham,	Courtland, Republic.
Martha S. Pittman,	Hammond, Bourbon.
Lester Allen Ramsey,	Topeka, Shawnee.
William Arthur Randle,	Bala, Riley.
Richard Reece,	Lawrence, Douglas.
Nellie Eva Rickman,	Manhattan, Riley.
Jennie Inez Ritner,	Manhattan, Riley.
Elmer D. Samson,	Quinter, Gove.
Ramer Henry Sanneman,	Clay Center, Clay.
William Paul Schroeder,	Lebanon, Smith.
Earl Locke Shattuck,	Holton, Jackson.
Martin Roy Shuler,	Clifton, Washington.
Emily G. Smith,	Childress, Texas.
Winfield Weber Smith,	Manhattan, Riley.
Mabelle Sperry,	Neodesha, Wilson.
George A. Spohr,	Manhattan, Riley.
Julia C. Spohr,	Manhattan, Riley.
Henry Adam Spuhler,	Manhattan, Riley.
Orin A. Stevens,	Blue Rapids, Marshall.
Bruce Stewart,	Manhattan, Riley.
Claudius Stewart,	North Topeka, Shawnee.
Albert D. Stoddard,	Manhattan, Riley.
Daniel Charles Sullivan,	Ulysses, Grant.
Ernest Felix Swanson,	Hollis, Cloud.
Howard Taylor,	Chapman, Dickinson.
Elbert Wren Thurston,	Manhattan, Riley.
Warren Bunn Thurston,	Manhattan, Riley.
Doris M. Train,	Manhattan, Riley.
Jessie Leona Travis,	Oakley, Logan.
Chauncey Iles Weaver,	Wakefield, Clay.
Julia Verona Wendel,	Beattie, Marshall.
Carl Wheeler,	Bridgeport, Saline.
Ralph Richard White,	Newton, Harvey.
Thomas F. White,	Little River, Rice.
Charles H. Withington,	Manhattan, Riley.
Thomas M. Wood,	White City, Morris.
Edith Worden,	Topeka, Shawnee.
George Leroy Wright,	Marvin, Phillips.
Guy E. Yerkes,	Hutchinson, Reno.

SOPHOMORES.

Name.	Post-office and county (or state).
Ernest L. Adams,	Ozawkie, Jefferson.
Lizzie Bea Alexander,	Manhattan, Riley.
Jessie Patience Allen,	Manhattan, Riley.
Cyrus J. Anderson,	Hollis, Cloud.
Alfred Henry Baird,	Minneapolis, Ottawa.
Ethel Barber,	Manhattan, Riley.
Raymond C. Barr,	Manhattan, Riley.
R. A. Barry,	Belle Plaine, Sumner.
Charles Earle Bassler,	Manhattan, Riley.
Ethel Esther Berry,	Jewell, Jewell.
Clare Biddison,	Manhattan, Riley.
Ethel Viola Bixby,	Manhattan, Riley.
Horace Bixby,	Manhattan, Riley.
Mable J. Bower,	Manhattan, Riley.
Warren R. Boyd,	Kensington, Smith.
Raymond W. Brink,	Manhattan, Riley.
Henry W. Brinkman,	Olpe, Lyon.
James E. Brock,	Chase, Rice.
Lloyd Archie Brown,	Virgil, Greenwood.
William John Brown,	Fallriver, Greenwood.
Walter E. Burt,	Bronson, Bourbon.
Lulu Belle Carlat,	Auburn, Shawnee.
Clare Cave,	Manhattan, Riley.
Esther Evangeline Christensen,	Randolph, Riley.
Nell Christopher,	Wichita, Sedgwick.
Lee S. Clarke,	Wagoner, <i>Indian Territory</i> .
Earle Albert Cole,	Manhattan, Riley.
Claude S. Conner,	Lyons, Rice.
Hermon H. Conwell,	Topeka, Shawnee.
(Mrs.) Ida E. Cook,	Effingham, Atchison.
W. Howard Cook,	Kingman, Kingman.
Jerome Earl Cooley,	Manhattan, Riley.
Allan Elizabeth Cooper,	Manhattan, Riley.
Bernard C. Copeland,	Idana, Clay.
James R. Coxen,	Eskridge, Wabaunsee.
Harry B. Crawford,	Manhattan, Riley.
Guy S. Crise,	Manhattan, Riley.
Herman L. Cudney,	Belpre, Edwards.
Mabell Dana,	Manhattan, Riley.
Robert Lee Davis,	Vermilion, Marshall.
William L. Davis,	Fairview, Brown.
Loea Bessie DeArmond,	Manhattan, Riley.
Alexander H. Denneler,	Winchester, Jefferson.
Harry D. Douglas,	Manhattan, Riley.
Florence Edith Dresser,	Manhattan, Riley.
Marshal Elsas,	Manhattan, Riley.
James Renfrew Esdon,	Olsburg, Pottawatomie.
Lois Failyer,	Manhattan, Riley.
Lena Cora Fay,	Wilsey, Morris.
Harlow Ferguson,	Zeandale, (Wabaunsee).

Name.	Post-office and county (or state).
Stella Finlayson,	Summerfield, Marshall.
Anna Helen Foster,	Bennington, Ottawa.
Mamie C. Frey,	Elk, Chase.
Mary Eliza Gaden,	Riley, Riley.
James R. Garver,	Abilene, Dickinson.
Jesse E. George,	Manhattan, Riley.
Clarence T. Gibbon,	Hartford, Lyon.
Oliver Holmes Gish,	Acme, Dickinson.
Clyde Jamison Gore,	Raymore, <i>Missouri</i> .
Frank W. Grabendike,	Ottawa, Franklin.
Olin Graham,	Floyd, <i>Texas</i> .
Mont J. Green,	Randall, Jewell.
Samuel P. Haan,	Burlington, Coffey.
Albert P. Haeberle,	Peck, Sedgwick.
Harry T. Hamler,	Manhattan, Riley.
Mary Haney,	Manhattan, Riley.
Ellen J. Hanson,	Marquette, McPherson.
Milo M. Hastings,	Effingham, Atchison.
Homer Richard Hillman,	Goodland, Sherman.
Lawson Edward Hillman,	Goodland, Sherman.
William Warren Hole,	Washington, Washington.
Dexter Holloway,	Yates Center, Woodson.
Fred Houser,	Oxford, Sumner.
Ruby A. Howard,	Manhattan, Riley.
Catherine Hughes,	Topeka, Shawnee.
Flora May Hull,	Manhattan, Riley.
Kate M. Hutchinson,	Bellaire, Smith.
Irene Ingraham,	Manhattan, Riley.
Harry A. Ireland,	Bronson, Bourbon.
Minnie Alice Ise,	Downs, Osborne.
Charles Jacobus,	Manhattan, Riley.
Elmer Johnson,	Latimer, Morris.
Charles Sumner Jones,	Moran, Allen.
Louis M. Jorgenson,	Greenleaf, Washington.
Edith Joslin,	Randall, Jewell.
Edith B. Justin,	Manhattan, Riley.
Miner M. Justin,	Manhattan, Riley.
Clara Myrtle Kahl,	Manhattan, Riley.
Grover Cleveland Kahl,	Manhattan, Riley.
William W. Kendall,	Tonganoxie, Leavenworth.
Almira Kerr,	Idana, Clay.
Mary Kimball,	Manhattan, Riley.
Venus Kimble,	Keats, Riley.
Edward Rudolph Kupper,	Kansas City, Wyandotte.
Clarence Lambert,	Hiawatha, Brown.
Lorin Wendell Lawson,	McPherson, McPherson.
Adah Lewis,	Blue Rapids, Marshall.
Gertrude Lill,	Mounthope, Sedgwick.
Fred R. Lindsey,	Frankfort, Marshall.
Ella Helena Long,	Soldier, Jackson.
James A. Lupfer,	Larned, Pawnee.

Name.	Post.office and county (or state).
Edward Louis McClaskey,	Girard, Crawford.
Myron J. McCray,	Manhattan, Riley.
Ethel McDonald,	Manhattan, Riley.
U. B. McGreevy,	Great Bend, Barton.
Ethel Olive McKeen,	Russell, Russell.
Irwin Clearnce McManis,	Manhattan, Riley.
Carl E. Mallon,	Ogden, Riley.
Karl Manny,	Winfield, Cowley.
Eleanor March,	Manhattan, Riley.
Ella M. Meyer,	Riley, Riley.
Edward M. Miers,	Manhattan, Riley.
Fred Carl Miller,	Belvue, Pottawatomie.
Clarence Moffitt,	Winfield, Cowley.
Joseph Shaw Montgomery,	Cedar Point, Chase.
Leona Estelle Moore,	Manhattan, Riley.
Edward Allen Morgan,	Brainerd, Butler.
John Francis Morgan,	Sylvangrove, Lincoln.
Loren Claire Morgan,	Cherryvale, Montgomery.
James Morrison,	Ford, Ford.
William Thomas Morrison,	Phillipsburg, Phillips.
Caroline Morton,	Topeka, Shawnee.
Jacob Michael Murray,	Goff, Nemaha.
Lucy Needham,	Lane, Franklin.
Don M. Neer,	Winfield, Cowley.
Clarence Nevins,	Ford, Ford.
Orien James Newlin,	Coldwater, Comanche.
Bessie Minerva Nicolet,	Manhattan, Riley.
Amer B. Nystrom,	Topeka, Shawnee.
Elinore B. Ober,	Ottawa, Franklin.
Ole J. Olsen,	Willis, Brown.
Anna Matilda Olson,	Manhattan, Riley.
Harry Oman,	Leonardville, Riley.
Burton Sylvester Orr,	Topeka, Shawnee.
Henry Otto,	Manhattan, Riley.
Rennick Rubenell Paine,	Manhattan, Riley.
Joseph W. Painter,	Beverly, Lincoln.
Louis Reynolds Parkerson,	Manhattan, Riley.
Eliphalet Thierer Patee,	Manhattan, Riley.
Cyrus Arthur Perry,	Greenleaf, Washington.
John Buell Peterson,	Wichita, Sedgwick.
Allen G. Philips,	Topeka, Shawnee.
Harry E. Porcer,	Manhattan, Riley.
George Percival Potter,	Peabody, Marion.
Webster McGee Putnam,	Richmond, Franklin.
Georgia Lily Quinn,	Manhattan, Riley.
Raymond Ramage,	Arkansas City, Cowley.
Elizabeth Randle,	Bala, Riley.
Lulu Mahala Rannels,	Manhattan, Riley.
Alvin Josiah Reed,	Saint Clere, Pottawatomie.
Hiram R. Reed,	Centralia, Nemaha.
Edward Richards,	Manhattan, Riley.

Name.	Post-office and county (or state).
James Richards,	Manhattan, Riley.
Ernest W. Robbins,	Arkansas City, Cowley.
Albert Finis Roberts,	Morrill, Brown.
Blanche Robertson,	Manhattan, Riley.
John Michael Ryan,	Muscotah, (Jackson).
Edwin George Schafer,	Jewell, Jewell.
Walter T. Scholz,	Frankfort, Marshall.
Martin William Schottler,	Emporia, Lyon.
Viola Adeline Secrest,	Randolph, Riley.
Wilson George Shelley,	McPherson, McPherson.
Rollie Shirley,	Perry, Jefferson.
G. Wallace Simpson,	Council Grove, Morris.
Perle Harrison Skinner,	Jewell, Jewell.
Curtis Avery Smith,	Manhattan, Riley.
Hallie M. Smith,	Manhattan, Riley.
Margaret Grace Smith,	Manhattan, Riley.
Stanley Van Smith,	Ozawkie, Jefferson.
Frank Sorgatz,	Concordia, Cloud.
H. Ernest Soulé,	Long Island, Phillips.
Charley Stants,	Kensington, Smith.
Maurice I. Stauffer,	Randall, Jewell.
Grace Elizabeth Streeter,	Wakefield, Clay.
Lyman Bradley Streeter,	Wakefield, Clay.
Herbert D. Strong,	Goddard, Sedgick.
Blanche Elsie Stump,	Manhattan, Riley.
Bertha Florence Sweet,	Manhattan, Riley.
Irene Alma Taylor,	Chapman, Dickinson.
Garfield B. Thomas,	Clay Center, Clay.
Earle Thurston,	Manhattan, Riley.
Eiba Todd,	Manhattan, Riley.
Anna R. Tolin,	Soldier, Jackson.
Horace E. Ulrich,	Manhattan, Riley.
May E. Umberger,	Hymer, Chase.
Carroll Walker,	Frankfort, Marshall.
Josephine Elizabeth Walter,	Manhattan, Riley.
Merton Luther Walter,	Manhattan, Riley.
Daniel Walters,	Manhattan, Riley.
Warren Elmer Watkins,	Anthony, Harper.
Jessie Barbara Wells,	Luray, Russell.
Gladys K. Wenkheimer,	Belpre, (Pawnee).
Georgiana West,	Silverlake, Shawnee.
Helen Clara Westgate,	Manhattan, (Geary).
Rose Wilkinson,	Manhattan, Riley.
Chloe May Willis,	Manhattan, Riley.
Nelle Wolf,	Manhattan, Riley.
Asa Calvin Zimmerman,	Moray, Doniphan.

FRESHMEN.

Name.	Post-office and county (or state).
Arthur Lawrence Abrams,	Arkansas City, Cowley.
Bess Alexander,	Welda, Anderson.
Kate Alfrey,	McAllaster, Logan.
Cecile Allentharp,	Manhattan, Riley.
Charles M. Alspach,	Axtell, Marshall.
Clyde Harrison Alspaugh,	Lincolnvill, Marion.
Eva Irene Alspaugh,	Lincolnvill, Marion.
Augusta C. Amos,	Manhattan, Riley.
William C. Anderson,	Minneapolis, Ottawa.
Grace Aileen Apitz,	Manhattan, Riley.
Jessie Edwina Apitz,	Manhattan, Riley.
Charles Henry Arundel,	Manhattan, Riley.
Eppa Cleveland Ausherman,	Elmont, Shawnee.
Charles W. Avery,	Coldwater, Comanche.
Benjamin B. Baird,	Riley, Riley.
Robert Roy Baird,	Riley, Riley.
Walter E. Baker,	Washington, Washington.
Harold Bales,	Densmore, Norton.
Alice C. Ballou,	Delphos, Ottawa.
Marie Rilda Bardshar,	Mounthope, Sedgwick.
Francis Alva Barnett,	Emporia, Lyon.
Ralph Earl Barnhart,	Centropolis, Franklin.
Vernon Elwell Bates,	Manhattan, Riley.
Ernest Elmer Beighle,	Manhattan, Riley.
Hulda L. J. Bennett,	Manhattan, Riley.
Inga Bentsen,	Willis, Brown.
George P. Berger,	Longford, Clay.
Louis Berges,	Onaga, Pottawatomie.
Ira Roscoe Berkey,	Louisburg, Miami.
Edna Eleanor Biddison,	Manhattan, Riley.
Worthy ValJean Biddison,	Manhattan, Riley.
Ethel Bisbey,	Wamego, Pottawatomie.
Harry Louis Blachly,	Leonardville, Riley.
Ida Adelia Blachly,	Leonardville, Riley.
E. Lee Boerstler,	Humboldt, Allen.
Robert Gould Boyd,	Elmo, Dickinson.
John Arthur Broberg,	Lincoln, Lincoln.
Ella V. Brooks,	Tescott, Ottawa.
Anna Matilda Brown,	Kanona, Decatur.
Harry Wendelle Brown,	Virgil, Greenwood.
John Henry Brown,	Independence, Montgomery.
Elmer Bull,	Kipp, Saline.
Clyde E. Bundy,	Burns, Marion.
Esther Butler,	Manhattan, Riley.
Ralph Elmer Caldwell,	Garnett, Anderson.
Carrie Carls,	Morganville, Clay.
Walter W. Carlson,	Mingo, Thomas.
Etta Carlton,	Manhattan, Riley.
Herbert Ray Case,	Valley Center, Sedgwick.
Alfred I. Casey,	Corning, Nemaha.

Name.	Post-office and county (or state).
Charles Elmer Cassel,	Manhattan, Riley.
Robert Russell Cave,	Manhattan, Riley.
Wayne B. Cave,	Manhattan, Riley.
Ralph Thompson Challenger,	Burrton, Harvey.
Zana Emma Challenger,	Burrton, Harvey.
Nina E. Church,	Smith Center, Smith.
Minnie Fay Conner,	Lyons, Rice.
Louis Graham Cook,	Effingham, Atchison.
Ralph Cooley,	Manhattan, Riley.
Ralph E. Coon,	Topeka, Shawnee.
Marie Coons,	Manhattan, Riley.
Katherine Cooper,	Manhattan, Riley.
Alexander B. Cron,	Augusta, Butler.
Floyd M. Cudney,	Belpre, Edwards.
Sol Whitney Cunningham,	Manhattan, Riley.
Charles Ferdinand Curs,	Manhattan, Riley.
Eunice Eldessie Custer,	Manhattan, Riley.
James Scott Daniels,	Jamestown, Cloud.
Curtis Lynn Daughters,	Lincoln, Lincoln.
Donald Davies,	Green, Clay.
Irma Davies,	Green, Clay.
Bernice Ada Deaver,	Ionia, Jewell.
Ruby Fae Deaver,	Esbon, Jewell.
George Henry DeWyke,	Randolph, Riley.
Floyd Dixon,	Lebanon, Smith.
Maxwell C. Donley,	Powhattan, Brown.
Ferol Neva Dougherty,	Manhattan, Riley.
James Philip Douglas,	Beattie, Marshall.
Walter H. Edmundson,	Home, Marshall.
Mary Amy Elder,	Osage City, Osage.
Emmett Emslie,	Manhattan, Riley.
Emel T. Erikson,	Dwight, (Geary).
Phillip Eustace,	Wakefield, Clay.
Alwyn Kenneth Evans,	Waldo, Russell.
Blanche L. Evans,	Manhattan, Riley.
Robert Kenneth Evans,	Summerfield, Marshall.
Ross Farrar,	Arkansas City, Cowley.
Ray Warden Ferrell,	Utica, Ness.
Cydney Field,	Ionia, Jewell.
Louise L. Fielding,	Manhattan, Riley.
Louise Fleming,	Tecumseh, Shawnee.
Mabel D. Fleming,	Smith Center, Smith.
Carl Forsberg,	Manhattan, Riley.
Jesse Foster,	Manhattan, Riley.
Augusta M. Fullington,	Idana, Clay.
Erma Gammon,	Ramah, Colorado.
Eugene Gammon,	Ramah, Colorado.
George F. Gant,	Pratt, Pratt.
W. K. Gardner,	Homewood, Franklin.
Mattie May Garrett,	Dodge City, Ford.
LeRoy E. Gaston,	Morrill, Brown.

Name.	Post-office and county (or state).
Walter Byron Gernert,	McPherson, McPherson.
Harry Ottis Gibson,	Arkansas City, Cowley.
Claire Vernon Gilbert,	Manhattan, Riley.
Hazel D. Gilbert,	Manhattan, Riley.
Robert T. Gilbert,	Kansas City, <i>Missouri</i> .
George G. Goheen,	Manhattan, Riley.
Cecile Agnes Graham,	Manhattan, Riley.
Loren Omer Gray,	Galena, Cherokee.
Fred Foster Greeley,	Manhattan, Riley.
Chester W. Grizzell,	Clafin, Barton.
Edna Gertrude Grizzell,	Clafin, Barton.
Gabriel Grosfield,	Willis, Brown.
Walter J. Hagland,	Kansas City, <i>Missouri</i> .
Charles Meyers Haines,	Manhattan, Riley.
Hope Faith Charity Hall,	Wichita, Sedgwick.
John Halloran,	Castleton, Reno.
Ervin Harold,	Manhattan, Riley.
Ina Harold,	Manhattan, Riley.
Tillie Harold,	Manhattan, Riley.
Frank Clyde Harris,	Harveyville, Wabaunsee.
Maude Harris,	Harveyville, Wabaunsee.
Quarton W. Harrison,	Manhattan, Riley.
Ida F. Hassebroek,	Manhattan, Riley.
Lizzie F. Hassebroek,	Manhattan, Riley.
F. Otto Hassman,	Manhattan, Riley.
Ella Hathaway,	Mankato, Jewell.
James W. Hawkes,	Banner, Trego.
Joseph Morrow Hawks,	Hiawatha, Brown.
Grace Hawkins,	Marysville, Marshall.
Stella Hawkins,	Marysville, Marshall.
Lawrence Glenn Haynes,	Glasco, Cloud.
Nora Hays,	Manhattan, (Pottawatomie).
Alice Mabel Hazen,	Centralia, Nemaha.
William Hemphill,	Pratt, Pratt.
Jestie Lovinia Hepler,	Manhattan, Riley.
Ella A. Himes,	Manhattan, Riley.
Martin Anthon Hinrichs,	Cleburne, Riley.
Leon George Hoffman,	Manhattan, Riley.
Barton Holland,	Topeka, Shawnee.
Josie Holland,	Manhattan, Riley.
Vera E. Holloway,	Yates Center, Woodson.
Arthur Holmes,	Carbondale, Osage.
William Avery Hopper,	Arkansas City, Cowley.
Clyde W. Horton,	Sterling, Rice.
Annice Howell,	North Topeka, Shawnee.
Grace Gertrude Hull,	Manhattan, Riley.
Pearl May Hull,	Kiowa, Barber.
Ralph W. Hull,	Manhattan, Riley.
Wyllys Lyman Hull,	Milford, Geary.
Helen Knostman Huse,	Manhattan, Riley.
Archie Edward Immenschuh,	Wamego, Pottawatomie.

Name.	Post-office and county (or state).
Marguerite James,	Riley, Riley.
Benjamin David Jeffs,	Hutchinson, Reno.
Minnie Ora Jenkins,	Council Grove, Morris.
A. Frank Johnson, jr,	Independence, Montgomery.
Harry C. Johnson,	Dwight, Morris.
Martin A. Johnson,	Topeka, Shawnee.
Edna Mary Jones,	Manhattan, Riley.
Elmer W. Jones,	Elk Falls, Elk.
Seneca Jones,	Bala, Riley.
Ursa Joslin,	Randall, Jewell.
Henry D. Kappelmann,	Linn, Washington.
Charles Alterson Kelsall,	Reno, Leavenworth.
Clyde Kendall,	Latimer, Morris.
Arthur W. Kirby,	Paola, Miami.
Albert G. Kittell,	McPherson, McPherson.
David Kratzer,	Mitchell, Rice.
Alfred John Larmor,	Garden City, Finney.
Harriet Elizabeth Lash,	Hope, Dickinson.
Emma Lee,	Ionia, Jewell.
Orville H. Legg,	McCune, Crawford.
Abraham L. Leonard,	Ellis, Ellis.
Maud Lillian Logan,	Manhattan, Riley.
Ray DeBra Logue,	Hutchinson, Reno.
Edmund Franklin Loveless,	Antelope, Marion.
Henry C. Lucas,	Frankfort, Marshall.
Nels Ludvickson,	Severy, Greenwood.
William Thomas McCall,	Wa Keeney, Trego.
Ray Collins McCoy,	Partridge, Reno.
Alexander McCreery,	Hiawatha, Brown.
Emery W. McKee,	Hallowell, Cherokee.
Olive R. McKeeman,	Soldier, Jackson.
Edna Annie McKeen,	Manhattan, Riley.
James W. McLaughlin,	Girard, Crawford.
Harry Charles McLean,	Mankato, Jewell.
Achsah Claire Mackey,	Topeka, Shawnee.
Robert Johnson Mackey,	Topeka, Shawnee.
Philip Edward Marshall,	Denison, Jackson.
John Edward Martin,	Waverly, Coffey.
Jessie Lou Marty,	Merriam, Johnson.
Alice Nettie Marvin,	Manhattan, Riley.
Chalmer A. Mather,	Manhattan, Riley.
Delia Matteson,	Phillipsburg, Phillips.
James Arthur Milham,	Waverly, Coffey.
Harry Edward Miller,	Kechi, Sedgwick.
Francis Burzley Milliken,	Hill City, Graham.
John G. Missildine,	Oxford, Sumner.
George A. Moffatt,	Clyde, Cloud.
Harry H. Momyer,	Great Bend, Barton.
Raymond Morton Moody,	Lenexa, Johnson.
Albert R. Moore,	Coldwater, Comanche.
Celia Caroline Moore,	Manhattan, Riley.

Name.	Post-office and county (or state).
David Karl Morris,	Ottawa, Franklin.
Orr O. Morrison,	Manhattan, Riley.
Lizzie Morwick,	Eskridge, Wabaunsee.
Edna Anna Munger,	Manhattan, Riley.
Heber Orla Munger,	Manhattan, Riley.
Glenn G. Murphy,	Lyons, Rice.
Rudolph B. Nelson,	Osage City, Osage.
Guy D. Noel,	Valencia, Shawnee.
Victor Emanuel Oman,	Walsburg, Riley.
David Lawrence Orendorff,	Manhattan, Riley.
Floyd L. Osburn,	Peru, Chautauqua.
Charles Henry Paine,	Manhattan, Riley.
James Oliver Parker,	Lakin, Kearny.
Martin Luther Parsons,	Ada, Ottawa.
Harry A. Paul,	Osborne, Osborne.
William Clarence Paul,	Blue Rapids, Marshall.
Vernon Peachey,	Darlow, Reno.
Stella Jane Pearson,	Humboldt, Allen.
Earnest Cleland Penley,	Augusta, Butler.
Karl Orian Perfect,*	Jewell, Jewell.
Lora Perry,	Manhattan, Riley.
Gweneth M. Petty,	Morganville, Clay.
George H. Phinney,	Lebo, Coffey.
Arthur Benjamin Pincomb,	Merriam, Johnson.
Beulah Pitman,	Manhattan, Riley.
George Allison Porter,	Manhattan, Riley.
Russell C. Porter,	Manhattan, Riley.
Adeline Poston,	Emporia, Lyon.
Emma Praeger,	Cliffin, Barton.
Herman Albert Praeger,	Cliffin, Barton.
James J. Price,	Emporia, Lyon.
Ed. H. Pugh,	Independence, Montgomery.
Thomas Jefferson Ragland,	Topeka, Shawnee.
Harold S. Records,	Beloit, Mitchell.
Hallie Reed,	Saint Clere, Pottawatomie.
Oliver Willes Reynolds,	Paola, Miami.
John A. Richards,	Manhattan, Riley.
Ida Ethel Rigney,	Manhattan, Riley.
Percy M. Roberts,	Clearwater, (Sumner).
Donald Ross,	Independence, Montgomery.
Clara Dorothy Schield,	Hanover, Washington.
John Schlaefli,	Cawker City, Mitchell.
Henry W. Schmidler,	Marysville, Marshall.
Nola Schriver,	Whitewater, Butler.
Jay Warren Simpson,	Talmage, Dickinson.
Jay Latimer Smith,	Jzawkie, Jefferson.
Ned Smith,	Manhattan, Riley.
Ruth Anna Smith,	Manhattan, Riley.
Ralph Edwin Snapp,	Belleville, Republic.
Clarence A. Souders,	Manhattan, Riley.

* Deceased.

Name.	Post-office and county (or state).
Agnes J. Soupene,	Manhattan, Riley.
Guy A. Speers,	Haddam, Washington.
Roy E. Spriggs,	Little River, Rice.
Max Llewellyn Steele,	Minneapolis, Ottawa.
Kate E. Stinson,	Kanona, Decatur.
William M. Stivison,	Lyndon, Osage.
Leora Juanita Sutcliffe,	Mankato, Jewell.
Ross H. Sweet,	Manhattan, Riley.
Thomas Victor Terbush,	Potwin, Butler.
Harry M. Thompson,	Burrton, Harvey.
Louise B. Throbeck,	Norway, Republic.
Merritt Rex Tinkham,	Manhattan, Riley.
Besse L. Tolin,	Soldier, Jackson.
Charles T. Topping,	Florence, Marion.
Richard W. Wallace,	Wichita, Sedgwick.
Catherine N. Ward,	Minneapolis, Ottawa.
Paul Joseph Warden,	McCracken, Rush.
John Monroe Washburn,	Topeka, Shawnee.
Lulu Edith Watt,	Kansas City, Wyandotte.
Elsie May Waymire,	Frankfort, Marshall.
Robert Earnest Whitfield,	Wabaunsee, Wabaunsee.
Burton H. Wilber,	Lyons, Rice.
Harrison Walter Wilkison,	Dwight, Morris.
Charles Julius Willard,	Manhattan, Riley.
James J. Williams,	Home, Marshall.
Vesta Williston,	Manhattan, Riley.
Bruce S. Wilson,	Manhattan, Riley.
Frances Odell Wilson,	Ingalls, Gray.
Ira A. Wilson,	Winfield, Cowley.
Norman F. Wilson,	Oberlin, Decatur.
Georgia Withington,	Manhattan, Riley.
Nellie Lunetta Wreath,	Manhattan, (Pottawatomie).
Charles W. Wynkoop,	Atchison, Atchison.
William R. Yerkes,	Hutchinson, Reno.
Stuart Smith Young,	Manhattan, Riley.
James Walter Zahnley,	Dwight, Morris.

PREPARATORY.

Krien Aeilts,	Inman, McPherson.
Mahel Catherine Aikin,	Tyner, Smith.
Fred T. Alderson,	Burden, Cowley.
Jessie Mabel Alvord,	Zurich, Rooks.
Raiffe Alvord,	Manhattan, Riley.
Albion J. Anderson,	Manhattan, Riley.
Clyde L. Anderson,	Cawker City, Mitchell.
John H. Anderson,	Lebanon, Smith.
George Alexander Andrews,	Lancaster, Atchison.
Orville Perry Andrews,	Clifton, Clay.
Winfield Scott Armstrong,	Topeka, Shawnee.
Robert Askew,	Macksville, Stafford.
Will David Austin,	Isabel, Barber.

Name.	Post-office and county (or state).
Hannah Maud Avers,	Keats, Riley.
Thomas B. Avers,	Keats, Riley.
Arthur C. Bailey,	Wellington, Sumner.
Lambert L. Bailey,	Great Bend, Barton.
O. R. Baird,	Manhattan, Riley.
Jesse E. Barber,	Atchison, Atchison.
Harry Barbour,	Dearing, Montgomery.
James Knox Barker,	Bethel, Wyandotte.
John Barthold, jr.,	Partridge, Reno.
Walter Andrew Bartholf,	Manhattan, Riley.
Benjamin Franklin Bales,	Manhattan, Riley.
Myrtle Ruth Bayles,	Manhattan, Riley.
Osa Beeler,	Mankato, Jewell.
Arch Beggs,	Hallowell, Cherokee.
Robert E. Berkeley,	Burr Oak, Jewell.
Victor Hiram Berkey,	Louisburg, Miami.
Elbridge Jarvis Best,	Manhattan, Riley.
Leola Pearl Bixby,	Manhattan, Riley.
Fred Blakey,	Cheney, Kingman.
Paul Edwin Blodgett,	Keats, Riley.
George Marshall Boggs,	Beattie, Marshall.
Leroy Maxwell Bourbon,	Jewell, (Mitchell).
Ammie A. Bowker,	Saint John, Stafford.
Ruby E. Boyd,	Hoisington, Barton.
Charles Joseph Boyle,	Spivey, Kingman.
Ralph Hamilton Brady,	Abilene, Dickinson.
William John Bramwell,	Ames, Cloud.
Glen Edward Brooks,	Lucas, Osborne.
Charles E. Brower,	Wellington, Sumner.
Edward Roy Brown,	Duquoin, Harper.
Grace Florence Brown,	Manhattan, Riley.
Etta Buell,	Pavilion, Wabaunsee.
Ira E. Brown,	Sylvangrove, Lincoln.
John Truman Brown,	Hollenberg, Washington.
Mabel Rose Brown,	Adrian, Jackson.
Warren Martin Brown,	Mankato, Jewell.
George Bruner,	Larkin, Jackson.
Horace Butler,	Lyons, Rice.
Alfred Vivian Byarlay,	Bala, Riley.
Alpha Vivia Byarlay,	Bala, Riley.
Frank Robert Bynum,	Wichita, Sedgwick.
William Callahan,	Burr Oak, Jewell.
Paul Calvin,	Manhattan, Riley.
Ruth Calvin,	Manhattan, Riley.
Katherine Pearle Campbell,	Abilene, Dickinson.
Edward Canfield,	Iola, Allen.
Albert Carlson,	Blue Rapids, Marshall.
Anna Wilhelmina Carlson,	Manhattan, Riley.
Carl August Carlson,	Clifton, Washington.
John R. Carnahan,	Manhattan, Riley.
Sarah Elizabeth Cassel,	Manhattan, Riley.

Name.	Post-office and county (or state).
Harold Edmund Cate,	Eskridge, Wabaunsee.
Ben T. Chaney,	Adrian, Jackson.
Villa Circle,	Hazelton, Barber.
Henry Leslie Clare,	Sterling, Rice.
C. Grace Clarkson,	Fairport, Russell.
Dora Clarkson,	Fairport, Russell.
Earl Clayton,	Admire, Lyon.
Ethel R. Coffman,	Manhattan, Riley.
Joseph H. Coffman,	Manhattan, Riley.
Grover Coker,	Scott City, Scott.
Bessie Cole,	Manhattan, Riley.
Edwin Lloyd Cole,	Manhattan, Riley.
Blanche M. Collister,	Manhattan, Riley.
Allan Colman,	Talmage, Dickinson.
Charles Thomas Colver,	Clearwater, Sedgwick.
Harry Colwell,	Leonardville, Riley.
Leslie D. Connell,	Altoona, Wilson.
Joseph Hayes Connelly,	Parsons, Labette.
George Washington Conner,	Cheney, Sedgwick.
E. M. Cook,	Effingham, Atchison.
James Martin Cook,	Effingham, Atchison.
Nora Belle Cook,	Irving, Marshall.
Fern B. Copsey,	Waverly, Coffey.
Robert Lee Cormack,	Solomon, Dickinson.
Nelson F. Cornelius,	Rantoul, Franklin.
Theodore Lewis Cowen,	Kansas City, <i>Missouri</i> .
Cyrus James Creighton,	Morrowville, Washington.
Wilford O. Cress,	Codell, Rooks.
Walter S. Criswell,	Frankfort, Marshall.
James Wesley Crooks,	Frankfort, Marshall.
Ward Webster Curtis,	Leonora, Norton.
Alfhild Marie Dahl,	Montrose, Jewell.
Nellie Danielson,	Clyde, Cloud.
Doris Danison,	Ionia, Jewell.
Frank Harrison Davis,	Pomona, Franklin.
Mayme Davis,	Little River, Rice.
Mabel Ethel Davison,	Michigan Valley, Osage.
Wilbur Sumner Davison,	Michigan Valley, Osage.
Emma C. Deere,	Manhattan, Riley.
Lynn J. DeGarmo,	Great Bend, Barton.
Lawrence Deming,	Larkin, Jackson.
Ida E. De Selm,	Manhattan, Riley.
Harry Ellsworth Disman,	Cherryvale, Montgomery.
Thomas Miller Dobbin,	Viola, Sedgwick.
Lulu Holmes Docking,	Manhattan, Riley.
Walter Dodson,	Denison, Jackson.
Frank Brooks Dolph,	McLouth, Jefferson.
Mabel Nellie Dolton,	Lucas, Russell.
Edgar L. Doom,	Bennington, Ottawa.
Myron E. Doom,	Bennington, Ottawa.
Fay Douglas,	Manhattan, Riley.

Name.	Post-office and county (or state).
Stephen Chester Douglass,	Clifton, Washington.
William Droge,	Seneca, Nemaha.
George Edward Dull,	Washington, Washington.
Ray Ronald Dunlap,	Winthrop, Iowa.
Vernon Albert Eastman,	Bloomington, Osborne.
Robert Eberhardt,	Maplehill, Wabaunsee.
Merrill R. Edelblute,	Keats, Riley.
Earl Lewis Edwards,	Phillipsburg, Phillips.
Harold Eike,	Leon, Butler.
Katherine Lucy Emslie,	Manhattan, Riley.
Grace Enlow,	Wamego, Pottawatomie.
Edwin A. Evenson,	Claffin, Barton.
Henry Farley,	Etna, Barber.
Hiram Fuller Farmer,	Arkansas City, Cowley.
Harry Albert Feary,	Anness, Sedgwick.
Charles O. Ferris,	Chapman, Dickinson.
James Fleming,	Tecumseh, Shawnee.
Karl Folkers,	Oatville, Sedgwick.
Donald Foote,	Simpson, Mitchell.
Floy Foote,	Simpson, Mitchell.
Minnie L. Forceman,	Vliets, Marshall.
Charles Earl Foresman,	Manhattan, Riley.
Carl M. Frame,	Parsons, Labette.
Charles Walter Frank,	Manhattan, Riley.
John Charles Franz,	Holycross, Pottawatomie.
Frank Pierce Freidline,	Caney, Montgomery.
Glen Westly French,	Manhattan, Riley.
Chauncey Frisbie,	Kingman, Kingman.
John Perl Fuller,	Hiawatha, Brown.
Arthur M. Fury,	Miltonvale, Cloud.
John Francis Gaden,	Riley, Riley.
John M. Garrity,	Perth, Sumner.
Ritchie A. Gaston,	Morrill, Brown.
Raymond E. Gates,	Anthony, Harper.
Gilbert G. Ghormley,	Partridge, Reno.
Charles H. Giddings,	Burns, Marion.
Roy Gilliland,	Mayetta, Jackson.
Clide Girod,	Towanda, Butler.
Renie Girod,	Towanda, Butler.
Amos H. Gish,	Abilene, Dickinson.
Naomi Gish,	Abilene, Dickinson.
Walter S. Gish,	Abilene, Dickinson.
Samuel T. Glass,	Eskridge, Wabaunsee.
Daniel Albert Glenn,	Wamego, Pottawatomie.
Cledus Godlove,	Manhattan, Riley.
William Holman Goldsmith,	Acme, Dickinson.
Robert A. Grant,	Lane, Franklin.
George L. Graves,	Kiowa, Barber.
Archie Griffie,	Frankfort, Marshall.
William Henry Grinter,	Perry, Jefferson.
Oscar James Guilbert,	Banner, Trego.

Name.	Post-office and county (or state).
Edward Guild,	Washington, Washington.
Aaron Guth,	Sterling, Rice.
Harriet Inez Guttridge,	Cullison, Pratt.
Anton Leadue Haggman,	Kackley, Republic.
Samuel William Hallock,	Englewood, Clark.
Vernon Halstrom,	Vliets, Marshall.
Alfred F. Hammar,	Haddam, Washington.
R. D. Haney,	Courtland, Republic.
Alfred Charles Hansen,	Willis, Brown.
Anton Hanson,	Jamestown, Cloud.
Harry W. Hanson,	Manhattan, Riley.
Wilfred Harned,	Coffeyville, Montgomery.
Bertha Harri,	Brookville, Saline.
Elizabeth C. Harri,	Brookville, Saline.
Fritz F. Harri,	Brookville, Saline.
Arthur Lynn Harris,	Harveyville, Wabaunsee.
Rolla Harrison,	Wellsville, Franklin.
Walter L. Hart,	Crestline, Cherokee.
Georgia Harvey,	Flush, Pottawatomie.
Charles C. Hastings,	Edgerton, Johnson.
Frank G. Haulenbeck,	Manhattan, Riley.
Ernest E. Hawke,	Wakarusa, Shawnee.
Arthur Raymond Hawkes,	Banner, Trego.
LeRoy Dunton Hawkes,	Banner, Trego.
John Jesse Heidebrecht,	Inman, McPherson.
Eusebia Olive Helm,	Manhattan, Riley.
Jenny Matapony Helm,	Wamego, Pottawatomie.
August Helscher,	Paradise, Russell.
Charles Heltman,	Webber, Jewell.
Charles Hennon,	Morrowville, Washington.
Ida Viola Hepler,	Manhattan, Riley.
Nora E. Hepler,	Manhattan, Riley.
Clarence Hill,	Mounthope, Sedgwick.
Kathryn Gertrude Hilliard,	Manhattan, Riley.
Rebecca A. Himes,	Manhattan, Riley.
Pearle Frances Hinkle,	Courtland, Republic.
Jesse T. Hirst,	Hutchinson, Reno.
Charles M. Hoffhine,	Morrowville, Washington.
Leonard Joseph Hole,	Manhattan, Riley.
Ada Statira Holroyd,	Manhattan, Riley.
Fred Hopper,	Arkansas City, Cowley.
Emma Grace Horning,	Grantville, Jefferson.
Alfred Newton Horstman,	Kansas City, Wyandotte.
Luther G. Howard,	Cawker City, Mitchell.
Charles F. Hughes,	Manchester, Dickinson.
David H. Hull,	Kiowa, Barber.
Pansy Claribel Humphries,	Kiowa, Barber.
Russ T. Hutchins,	Cawker City, Mitchell.
George Dee Inslee,	Isabel, Pratt.
Alice Victoria Ipsen,	Cleburne, Riley.
Alfred W. Isern,	Ellinwood, Barton.

Name.	Post-office and county (or state).
Inez May Jackson,	Kidderville, Hodgeman.
Rosetta James,	Bala, Riley.
Jessie Jenkins,	Council Grove, Morris.
Edward G. Johnson,	Colony, Anderson.
Etta F. Johnson,	Leonardville, Riley.
Herman Berger Johnson,	Vliets, Marshall.
Lester Johnson,	Wabaunsee, Wabaunsee.
Frederick T. Jones,	Topeka, Shawnee.
Jennie Jones,	Plymouth, Lyon.
Laura Anne Jones,	Elk Falls, Elk.
Thomas Nelson Jones,	Plymouth, Lyon.
Tina Jorgenson,	Greenleaf, Washington.
Charles Judd,	Irving, Marshall.
Margaret Justin,	Manhattan, Riley.
Charles Kabance,	Holton, Jackson.
Anne Dorothea Kabel,	Fairport, Russell.
Tillie Marie Kammeyer,	Manhattan, Riley.
Burtin O. Keck,	Summerfield, Marshall.
Francis E. Kelly,	Esbon, Jewell.
Martin E. Kelly,	Esbon, Jewell.
Elizabeth Kemper,	Louisville, Pottawatomie.
Darilah Kennedy,	Dana, Phillips.
Charles D. Kinnear,	Powhattan, Brown.
Carl L. Kipp,	Piqua, Woodson.
Frank Kirgis,	Beloit, Mitchell.
Wilson V. Knapp,	Manhattan, Riley.
Albert E. Kresin,	Glenelder, Mitchell.
Edison Frank Kubin,	McPherson, McPherson.
William Henry Lacey,	Saint Marys, (Jackson).
Mary S. Lane,	Chalk, Wabaunsee.
James Oscar Larson,	Powhattan, Brown.
Neva Ethel Larson,	Tescott, Ottawa.
Arthur Albert Lee,	Columbus, Cherokee.
Mary Esther Lee,	Manhattan, Riley.
Earl Charles Lepper,	Sharon, Barber.
Otto Lepper,	Sharon, Barber.
Bertha Lervold,	Scandia, Republic.
Martin Lervold,	Scandia, Republic.
Mary Lervold,	Scandia, Republic.
Bertha Bell Lewis,	Topeka, Shawnee.
Frank Clark Lewis,	Fontana, Miami.
James Edward Lewis,	Topeka, Shawnee.
John Lewis,	Emporia, Lyon.
Priscilla Lewis,	Manhattan, Riley.
Joe Grigsby Lill,	Mounthope, Sedgwick.
Roy Stanley Lilley,	Piedmont, Greenwood.
Charles Lindsay,	Manhattan, Riley.
Nellie Lindsay,	Manhattan, Riley.
Charles Lipperd,	Oxford, Sumner.
Marguerite Lofinck,	Manhattan, Riley.
John Edson Love,	Arkansas City, Cowley.

Name.	Post-office and county (or state).
John McCoy Love,	Partridge, Reno.
Roland Loyd,	Bendena, Doniphan.
Bessie Lundberg,	Manhattan, Riley.
Horace Grover McAllister,	Manhattan, Riley.
William Huey McAninch,	Manhattan, Riley.
Vern Allen McCall,	Utica, Ness.
Robert Albert McCauley,	Olivet, Osage.
C. Wayne McCreary,	Holton, Jackson.
Etta Marie McCreary,	Hiawatha, Brown.
William W. McCrory,	Mayetta, Jackson.
Fred H. McCue,	Cleveland, Kingman.
Homer B. McFadden,	Maize, Sedgwick.
Myrtle McFadden,	Stafford, Stafford.
Robert McInnes,	Langley, Ellsworth.
Joseph M. McKamey,	Kansas City, Wyandotte.
Walter Scott McKay,	Independence, Montgomery.
Roma Harold McOscar,	Lyons, Lyons.
Sam A. McWilliams,	Morrowville, Washington.
Andrew Mace,	Plainville, Rooks.
Floyd Russell Machin,	Dorrance, Russell.
Pearl Madden,	Valley Falls, Jefferson.
Mabel Clare Maris,	Coldwater, Comanche.
Frank Ernest Marsh,	Manhattan, Riley.
Clyde Marshall,	Mounthope, Sedgwick.
F. Herman Mayer,	Alta Vista, Wabaunsee.
Edgar Clyde Mead,	Dexter, Cowley.
John R. Meister,	Wakefield, Clay.
Ernest Sterling Melvin,	Eminence, Finney.
Allen Merriam,	Winfield, Cowley.
W. S. Merriam,	Winfield, Cowley.
George R. Merrill,	Fredonia, Wilson.
Henry Miller,	Milford, Geary.
Charles O. Mitchell,	Manhattan, Riley.
George Thomas Mitchell,	Edna, Labette.
John Will Montgomery,	Manhattan, Riley.
Vellah Montgomery,	Manhattan, Riley.
Earl W. Moore,	Pratt, Pratt.
Gertrude May Moore,	Pratt, Pratt.
James Andrew Moore,	Norway, Republic.
Ruth Moore,	Dresden, Decatur.
A. R. Morrell,	Liberal, Seward.
Edith M. Morrow,	Waterville, Marshall.
Edward R. Morton,	Topeka, Shawnee.
Margaret Ethel Moseley,	Alma, Wabaunsee.
William Moss,	Lincoln, Lincoln.
Francis Mulhern,	Beattie, Marshall.
Edwin G. Munsell,	Herington, Dickinson.
Daisie Munson,	Winfield, Cowley.
Della Delpha Murphy,	Manhattan, Riley.
John A. Murrow,	Adrian, Jackson.
Marx Anthony Musser,	Acme, Dickinson.

Name.	Post-office and county (or state).
Joseph M. Myszka,	Garnett, Anderson.
J. Percy Naff,	Comiskey, Lyon.
Tellie E. B. Nafziger,	Partridge, Reno.
Asa Oaken Nash,	Manhattan, Riley.
William B. Naylor,	Morrowville, Washington.
Flora Belle Needham,	Osawatomie, Miami.
Elmer N. Nelson,	Keats, Riley.
John Francis Nevins,	Arrington, Atchison.
Ernest B. Newell,	Manhattan, Riley.
Harry Nighswonger,	Viola, Sedgwick.
G. Albert Nitcher,	Pomona, Franklin.
Laura B. Nixon,	Riley, Riley.
Ida Rose Nonamaker,	Osborne, Osborne.
Owen Norton,	Marquette, McPherson.
Will F. Obenhaus,	La Crosse, Rush.
Patsey O'Donnell,	Yates Center, Woodson.
Glen B. Oldfather,	Maize, Sedgwick.
Leroy Oldfather,	Maize, Sedgwick.
Arthur Leroy Olson,	Manhattan, (Geary).
Daniel O'Neill,	Hoyt, Jackson.
Arthur J. Ostlund,	Clyde, Washington.
Scott Overfield,	Baker, Brown.
William Charles Pacey,	Miltonvale, Cloud.
Fred Copeland Page,	Lincoln, Lincoln.
Hope Olive Palmer,	Geuda Springs, (Cowley).
William Bradford Palmer,	Sabetha, Nemaha.
Neoma Parker,	Linn, Washington.
Bessadell Parks,	Manhattan, Riley.
Nelson Paro,	Ames, Cloud.
Harold Albert Pennington,	Hutchinson, Reno.
Carl A. Peterson,	Topeka, Shawnee.
Harry Elmer Peterson,	Junction City, Geary.
Nathan Peterson,	Beloit, Mitchell.
Lucile Rose Phillips,	Kackley, Republic.
Samuel Clayton Phillips,	Walton, Harvey.
William C. Phinney,	Lebo, Coffey.
Robert Platt,	Ætna, Barber.
Roy Wade Poage,	Kackley, Republic.
Stanford Delos Pomeroy,	Phillipsburg, Phillips.
Fred Winter Pontius,	Lawrence, Douglas.
Walter Poppe,	Bern, Nemaha.
George F. Porter,	Caney, Montgomery.
Thomas B. Porter,	Richfield, Norton.
Harold Kenneth Powell,	Powhattan, Brown.
Harry Cassell Priddy,	Elmont, Shawnee.
Aaron Purdy,	Arkansas City, Cowley.
Daniel Milton Purdy,	Arkansas City, Cowley.
Lloyd Quilhot,	Parkerville, Morris.
Earle Ramage,	Little River, Rice.
Leaffa Laura C. Randall,	Manhattan, Riley.
Edith Randle,	Riley, Riley.

Name.	Post-office and county (or state).
Frank W. Ranney,	Osawatomie, Miami.
Joseph Reeser,	Logan, Phillips.
Eva Mary Reeves,	Manhattan, Riley.
Wray Robert Reeves,	Manhattan, Riley.
Cash W. Regan,	Esbon, Jewell.
Frank John Reida,	Rago, Kingman.
Katherine A. Reidy,	Junction City, Geary.
Mae Virginia Reidy,	Manhattan, Riley.
Dulcia Elizabeth Rendle,	Holycross, (Jackson).
George A. Rendle,	Holycross, (Jackson).
Guy Chester Rexroad,	Partridge, Reno.
Warren E. Rice,	Gypsum, Saline.
George Walter Robbins,	Great Bend, Barton.
Frank Robinson,	Great Bend, Barton.
May-beth Robison,	Manhattan, Riley.
Bertha May Romine,	Burlingame, Osage.
Arthur Henry Rose,	New Cambria, Saline.
Matthias Roseberry,	Osawatomie, Miami.
Eugene Ruede,	Manhattan, Riley.
David D. Rutledge,	Maplehill, Wabaunsee.
Ira Watson Ryan,	El Dorado, Butler.
Norton Sanders,	Osage City, (Lyon).
Vern Sargent,	Manhattan, Riley.
C. H. Schiedeman,	La Crosse, Rush.
Katie Schiedeman,	La Crosse, Rush.
George Schild,	Hanover, Washington.
Hugo Schild,	Hanover, Washington.
Fred Schlaefli,	Cawker City, Mitchell.
Francis A. Schroeder,	Lebanon, Smith.
Richard Schuppert,	Arrington, Atchison.
John Logan Scott,	Norway, Republic.
Buswell Edwin Seely,	Dresden, Decatur.
Kathleen Selby,	Manhattan, Riley.
Amelia Seng,	Salina, Saline.
Henry Seng,	Salina, Saline.
Stella Seng,	Salina, Saline.
Earl Sewell,	Garnett, Anderson.
Henry Shank,	St. John, Stafford.
Claude L. Shaw,	Eskridge, Wabaunsee.
Herbert Shearer,	Frankfort, Marshall.
Lloyd Hedrick Shepherd,	Hutchinson, Reno.
Archie James Shirley,	Grantville, Jefferson.
Agnes Lettitia Siegle,	Lost Springs, Marion.
Grace Evelyn Simpson,	Manhattan, Riley.
Walter Alvin Simpson,	Manhattan, Riley.
Walter Dorr Singleton,	Quincy, Greenwood.
Jay Sitterley,	Manhattan, Riley.
Lois A. Sitterley,	Manhattan, Riley.
Oscar Sitterley,	Manhattan, Riley.
John Slabach, jr.,	Conway, McPherson.
Charles William Slack,	Piqua, Woodson.

Name.	Post-office and county (or state).
Myrtle Slater,	Manhattan, Riley.
Harry Allen Smith,	Sabetha, Nemaha.
Laura May Smith,	Wamego, (Wabaunsee.)
Minnie V. Smith,	Clearmont, <i>Missouri</i> .
James William Snodgrass,	Barrett, Marshall.
Ira E. Snyder,	Alton, Osborne.
Otis C. Snyder,	Dodge City, Ford.
Amelia Socolofsky,	Tampa, Marion.
Ruben Soderquist,	Vliets, Marshall.
Luther O. Solt,	Zeandale, Riley.
Talmage Solt,	Manhattan, Riley.
Charles Clyde Spangler,	Auburn, Shawnee.
George H. Spark,	Topeka, Shawnee.
Burtis Leo Sprague,	Powhattan, Brown.
Frank Jacob Spuhler,	Manhattan, Riley.
Adolph Stahr,	Clay Center, Clay.
Lucian Robert Stanfield,	Chanute, Neosho.
Stephen O. Stanfield,	Alton, Osborne.
John Sherman Stauffer,	South Haven, Sumner.
John M. Stevens,	Abilene, Dickinson.
Segur E. Stillman,	Manhattan, Riley.
Edna Viola Stoddard,	Muscotah, Atchison.
Charles Fred Streeter,	Wakefield, Clay.
Walter W. Strite,	Manhattan, Riley.
Herbert C. Strom,	Dwight, Morris.
Harry Carl Sturdy,	Bradford, Wabaunsee.
Elton C. Swingle,	Manhattan, Riley.
May Swingle,	Manhattan, Riley.
Vernon Fisher Tannehill,	Wakefield, Clay.
Thomas Jefferson Taylor,	Coldwater, Comanche.
Charles E. Tede,	Rantoul, Franklin.
Clarence Test,	Herington, Dickinson.
Guy H. Thomas,	Waldo, Russell.
Irving Thomas,	Wilson, Ellsworth.
Henry Walter Toogood,	Maplehill, Wabaunsee.
Margaret Towers,	Manhattan, Riley.
James Trainor,	Moundridge, McPherson.
Clark Travelute,	Marysville, Marshall.
Elma Travelute,	Marysville, Marshall.
Henry J. Troemper,	Alma, Wabaunsee.
Earl Jay Trosper,	Beattie, Marshall.
Joe Theodore Tucker,	Lawrence, Douglas.
J. E. Tyrrell,	Sterling, Rice.
Dollie E. Urquhart,	Wamego, Pottawatomie.
Elliott VanEveren,	Manhattan, Riley.
Lonnie F. Vass,	Glasco, Cloud.
Clarence Dudley Vawter,	Topeka, Shawnee.
Ella Mariam Voiles,	Manhattan, Riley.
Henry W. Wagner,	Holton, Jackson.
Elwood L. Walker,	Dresden, Decatur.
Pearle Mabel Walker,	Lenape, Leavenworth.

Name.	Post-office and county (or state).
Ida R. Walls,	Irving, Marshall.
Catherine E. Washington,	Manhattan, Riley.
William George Waugh,	Eskridge, Wabaunsee.
Charles Alvin Waymire,	Home, Marshall.
Charles R. Wears,	Manhattan, Riley.
Francis Weber,	Monument, Logan.
Louise M. Wertenberger,	Waterville, Marshall.
Willard Ames Whitney,	Manhattan, Riley.
Effie Viola Wilcox,	Sylvangrove, Lincoln.
Lloyd D. Willis,	Manhattan, Riley.
Floyd Emera Wilson,	Soldier, Jackson.
James Arthur Wilson,	Valley Center, Sedgwick.
Oscar Benjamin Wilson,	Webber, Jewell.
Roy M. Wilson,	Concordia, Cloud.
Delia Pamela Wing,	Carwood, Wichita.
Frederick William Winter,	Dover, Shawnee.
Alvin Ernest Wise,	Lawrence, Douglas.
Leslie B. Wise,	Clearwater, Sedgwick.
Harry Harold Wolff,	Topeka, Shawnee.
Nannie D. H. Woodbury,	Broughton, Clay.
W. George Woodsum,	Manhattan, Riley.
John Worley,	Natoma, Osborne.
Ray Curtis Worswick,	Oskaloosa, Jefferson.
Lory E. Wright,	Horton, Brown.
Frank E. Yarrow,	Wakefield, Clay.
Harry Ylander,	Vliets, Marshall.
Carrie York,	Dunlap, Morris.
John Delbert Zimmerman,	Lawrence, Douglas.

SPECIAL STUDENTS.

Harold H. Ámos,	Manhattan, Riley.
George Henry Berenzen,	Desoto, Johnson.
Guy Marian Caldwell,	Garnett, Anderson.
Gertrude Eakic,	Manhattan, Riley.
Thomas N. Fish,	Manhattan, Riley.
David Emerson Gall,	Reserve, Brown.
Winifred Rae Hall,	Russell, Russell.
(Mrs.) Martha R. Hamaker,	Manhattan, Riley.
Alexander C. Hart,	Coffeyville, Montgomery.
Thomas Haslam,	Council Grove, Morris.
Alvalina Thankful Hill,	Manhattan, Riley.
Henry Hoffhines,	Marquette, McPherson.
Arthur H. Hoffman,	Arkansas City, Cowley.
Mabel Howell,	Manhattan, Riley.
Walter A. Korb,	Hoxie, Sheridan.
Andrew DeLos McCampbell,	Manhattan, Riley.
Lyman S. Miller,	Dighton, Lane.
James M. Montague,	Mound City, Linn.
Alice E. O'Brien,	Manhattan, Riley.
J. L. Pelham,	Manhattan, Riley.
Arthur Clinton Plake,	Ottawa, Franklin.

Name.	Post-office and county (or state).
Anna Praeger,	Clafin, Barton.
Mettie Antoinette Reser,	Bigelow, Marshall.
Nora Richards,	Athol, Smith.
Jay F. Ross,	Manhattan, Riley.
Martin G. Smith,	Waverly, Coffey.
Milton David Snodgrass,	Manhattan, Riley.
Nona Steel,	Manhattan, Riley.
Fred Lawrence Williams,	Olpe, Lyon.
David H. Zuck,	Manhattan, Riley.

DAIRY SHORT COURSE.

William Louis Bartholomees,	Manhattan, Riley.
Thomas W. Bower,	Manhattan, Riley.
Edwin Lloyd Cole,	Manhattan, Riley.
Harvey Ralph Desler,	Kansas City, Wyandotte.
Edward S. Dolph,	McLouth, Jefferson.
Carl M. Frame,	Manhattan, Riley.
Quarton W. Harrison,	Manhattan, Riley.
Paris N. Hershey,	Abilene, Dickinson.
Peter H. Jorgenson,	Logan, Phillips.
Thomas Joseph Kitchell,	Wichita, Sedgwick.
Horace Grover McAllister,	Manhattan, Riley.
Frank McLaren,	Hope, Dickinson.
Chas. O. Peterson,	Monument, Logan.
Pontus Henry Ross,	Webber, Jewell.
O. A. Torrey,	Rosalia, Butler.
Lee L. Urquhart,	Wamego, Pottawatomie.
Waldo Whitman,	Lawrence, Douglas.
Stephen Irenæus Wilkin,	Bow Creek, (Rooks).
Robert Wilson,	Miltonvale, Cloud.

FARM DAIRY SHORT COURSE.

Guy Marion Caldwell,	Garnett, Anderson.
Roy Gilmore,	Oneida, Nemaha.
Luther O. Lindley,	Rose Hill, Butler.
Enos Martin,	Abilene, Dickinson.
Charles Malven Wilson,	Garnett, Anderson.

FARMERS' SHORT COURSE—SECOND TERM.

Theodore Aeilts,	Inman, McPherson.
Jay Bardshar,	Mounthope, Sedgwick.
Harry L. Burnett,	Arkansas City, Cowley.
Tom Ford Capsey,	Soldier, Jackson.
Harold Dahl,	Webber, Jewell.
Alvin Eshelman,	Acme, Dickinson.
Walter William Goddard,	Minneapolis, Ottawa.
Roy Raymond Goodin,	Derby, Sedgwick.
Charles Elmer Hall,	Kensington, Smith.
Charles A. W. Haseltine,	Manhattan, Riley.
Claude L. Hendricks,	Glenelder, Mitchell.
Alfred W. Isern,	Ellinwood, Barton.

Name.	Post-office and county (or state).
John M. Kugler,	Abilene, Dickinson.
Coy Luper,	Linn, Washington.
William L. Meuser,	Anson, Sumner.
George Miller,	Milford, Geary.
Arthur D. Perry,	Oskaloosa, Jefferson.
Edwin Henry Peter,	Randolph, Riley.
Carl Arthur Rumph,	Barclay, Osage.
James David Rymph,	Harper, Harper.
August W. Seng,	Salina, Saline.
Homer Charles Stevenson,	Beverly, Lincoln.
Everett W. Titterington,	Lawrence, Douglas.
Omer Herren Todd,	Coldwater, Comanche.
Earle R. Trout,	Pratt, Pratt.

FARMERS' SHORT COURSE—FIRST TERM.

Seth Andrew Abbott,	Dalton, Sumner.
Elmore Walters Albright,	Brewster, Sherman.
Homer Emory Baker,	Washington, Washington.
George Marshall Boggs,	Beattie, Marshall.
Ona Vantuyl Boston,	Washington, Washington.
Dan W. Circle,	Hazelton, Barber.
Earl Clayworth,	Harper, Harper.
Robert Jefferson Coursen,	Simpson, Mitchell.
Cyrus James Creighton,	Morrowville, Washington.
Bjorn Dahl,	Montrose, Jewell.
Clarence H. DeLong,	Emporia, Lyon.
Earl J. DeLong,	Emporia, Lyon.
Nelson C. Dewey,	Seward, Stafford.
Charles Dickson,	Carbondale, Osage.
Edwin A. Evenson,	Clafin, Barton.
Patrick Henry Fehily,	Holycross, (Jackson).
William Ferguson,	Westmoreland, Pottawatomie.
Harry Ottis Gibson,	Arkansas City, Cowley.
George A. Greenland,	Mankato, Jewell.
John S. Greenlund,	Clifton, Washington.
Harmon Haag,	Holton, Jackson.
Richard D. Hall,	Potter, Atchison.
Ellis M. Hallock,	Milo, Lincoln.
Claude N. R. Hansen,	Jamestown, Cloud.
Lee Harshaw,	Oswego, Labette.
Alexander C. Hart,	Coffeyville, Montgomery.
Rudolph Hobbie,	Tipton, Mitchell.
Glenn Huss,	Mounthope, Sedgwick.
Albert G. Janke, jr,	Clafin, Barton.
Charles Judd,	Irving, Marshall.
Henry T. Kasl,	Concordia, Cloud.
Orien Kirkpatrick,	Montrose, Jewell.
Charles Albert Klein,	Reece, Greenwood.
Thomas S. Kutis,	Bremen, Marshall.
Logan Laughlin,	Westmoreland, Pottawatomie.
John Arthur Lind,	Saffordville, Chase.

Name.	Post-office and county (or state).
Glen Livers,	Waterville, Marshall.
Ernest Arthur Lund,	Manhattan, (Pottawatomie).
J. W. McConnell,	Cherryvale, (Labette).
Fred H. McCue,	Cleveland, Kingman.
George Ernest McNeil,	Centralia, Nemaha.
Fred W. Maelzer,	Centralia, Nemaha.
J. W. Mercer,	Geuda Springs, Sumner.
Ernest Richard Miller,	Sabetha, Nemaha.
Harry Nighswonger,	Viola, Sedgwick.
Edward Nulik,	Caldwell, Sumner.
Arthur L. Olson,	Manhattan, (Geary).
Scott Overfield,	Baker, Brown.
Victor Palmquist,	Concordia, Cloud.
Clyde E. Phinney,	Lebo, Coffey.
Brooke Pontius,	Lawrence, Douglas.
Fred Winter Pontius,	Lawrence, Douglas.
Delbert Henry Rasmussen,	Clyde, Cloud.
Bright W. Reber,	Morrill, Brown.
David Rhodes,	Hope, Dickinson.
Conrad Rice,	Hiawatha, Brown.
Albert T. Robert,	Osage City, Osage.
Matthias Roseberry,	Osawatomie, Miami.
Gustav Adolph Ross,	Montrose, Jewell.
Clarence A. Rundell,	Darlow, Reno.
John Wesley Rymph,	Harper, Harper.
August Severson,	Randall, Jewell.
Milton E. Siebert,	Canada, Marion.
Elwin Spencer,	Belleville, Republic.
Edward Stegeman,	Tampa, Marion.
Herbert C. Strom,	Dwight, Morris.
James J. Subera,	Blackstone, Sumner.
John Lee Teagarden,	La Cygne, Linn.
John Augustus Tharp,	Winfield, Cowley.
Eugene Thille,	Cawker City, Mitchell.
Lewis Pierce Tudor,	Holton, Jackson.
William Tudor,	Holton, Jackson.
Guy Manley Veburg,	Ottawa, Franklin.
August Zacharias,	Oak Mills, Atchison.

DOMESTIC SCIENCE SHORT COURSE—SECOND TERM.

Elsie V. Anderson,	Randolph, Riley.
Hilma E. Anderson,	Manhattan, Riley.
Alice C. Ballou,	Delphos, Ottawa.
Cora Ethereal Blanchard,	Delphos, Ottawa.
Bertha Inez Braman,	Agra, Phillips.
Anna Barbara Brant,	Wichita, Sedgwick.
Anna Brunker,	Manhattan, Riley.
Sadie Burr,	Manhattan, Riley.
Katherine Pearle Campbell,	Abilene, Dickinson.
Amanda C. Christianson,	Corning, Nemaha.
Emma C. Deere,	Manhattan, Riley.

Name.	Post-office and county (or state).
Ella Florence DeWyke,	Randolph, Riley.
Gertrude Eakin,	Manhattan, Riley.
Gretta H. Greeley,	Manhattan, Riley.
Winifred Rae Hall,	Russell, Russell.
Emma A. Hanson,	Olsburg, Pottawatomie.
Anna Marie Hill,	Melvern, Osage.
Jennie Hoffhines,	Marquette, McPherson.
Jessie Honnell,	Horton, Brown.
Mary Bruce Inskeep,	Manhattan, (Pottawatomie).
Ruth Inskeep,	Manhattan, Riley.
Agnes Jenista,	Caldwell, Sumner.
Pearl Jenkins,	Manhattan, Riley.
Nellie Louise Johnson,	Vermillion, Marshall.
Edith Ellen Jones,	Cawker City, Mitchell.
Esta Keller,	Horton, Brown.
Maude Kimball,	Topeka, Shawnee.
Nellie Kimble,	Manhattan, Riley.
Louie Elizabeth Lantis,	Sedgwick, Harvey.
Anna Lofstedt,	Herington, Dickinson.
Elsie Luper,	Linn, Washington.
Gertrude May Moore,	Pratt, Pratt.
Della Murphy,	Manhattan, Riley.
Marie Olsen,	Willis, Brown.
(Mrs.) Mary Smith Paddock,	Manhattan, Riley.
Carrie L. Post,	Lawrence, Douglas.
Leala Rich,	Emporia, Lyon.
Ariel Shaw,	Plainville, Rooks.
(Mrs.) Muriel Slason,	Plainville, Rooks.
Jennie E. Smith,	Topeka, Shawnee.
Nona Steele,	Manhattan, Riley.
Anna C. Throbeck,	Norway, Republic.
Minnie VanPatten,	Centralia, Nemaha.
Estelle E. Wadsworth,	Manhattan, Riley.
Maude Williams,	Haven, Reno.
Inze Mary Worswick,	Oskaloosa, Jefferson.

DOMESTIC SCIENCE SHORT COURSE—FIRST TERM.

Ruth Adee,	Wells, Ottawa.
Mary Etta Allison,	Lyndon, Osage.
Mildred Burr,	Manhattan, Riley.
Jessie Lura Dix,	Manhattan, Riley.
Edith E. Finlayson,	Summerfield, Marshall.
Ressa Foresman,	Manhattan, Riley.
Maggie Gilman,	Osage, Osage.
Alfie Gronquist,	Irving, Marshall.
Kate M. Hutchinson,	Bellaire, Smith.
Ethel Claire Lane,	Oskaloosa, Jefferson.
Theodosia Lofinck,	Manhattan, Riley.
Almina Viola Murphy,	Manhattan, Riley.
Ruby Angelina Myers,	Manhattan, Riley.
Julia Nelson,	Montrose, Jewell.

Name.	Post-office and county (or state).
Sadie May Peterson,	Lyndon, Osage.
Mary Chrystena Smith,	Enterprise, Dickinson.
Myrtle Laura Smith,	Enterprise, Dickinson.
Lena Vinsonhaler,	Bellaire, Smith.
LaVena Esther Wells,	Kiowa, Barber.
Kittie L. Williams,	Manhattan, Riley.
Emma M. Zimmerman,	Enterprise, Dickinson.

DOMESTIC SCIENCE—SUMMER TERM.

Pearle Akin,	Manhattan, Riley.
Clara Grace Alexander,	Manhattan, Riley.
Jessie Mary Ballou,	Delphos, Ottawa.
Helen Elizabeth Bottomly,	Manhattan, Riley.
Eva Maggy Burtner,	Manhattan, Riley.
Mamie Grace Cunningham,	Delphos, (Cloud).
Trena Dahl,	Webber, Jewell.
Perylle Avis Embry,	Ottawa, Franklin.
Frances Walker Fish,	Manhattan, Riley.
Mildred I. Kirkwood,	Marysville, Marshall.
Nina H. Kirkwood,	Marysville, Marshall.
Emma Landgraf,	Hoyt, Jackson.
Gertrude Lewis,	Topeka, Shawnee.
Sara Grace McCrone,	Haddam, Washington.
Walter E. Mathewson,	Topeka, Shawnee.
Abbie Elida Putnam,	Manhattan, Riley.
Nellie Eva Rickman,	Manhattan, Riley.
Sophia Schmidler,	Marysville, Marshall.
Bertha Florence Sweet,	Manhattan, Riley.
Jessie Leona Travis,	Oakley, Logan.
Rebecca Rees Washington,	Manhattan, Riley.

APPRENTICES IN SHOPS.

Edmund Buckley,	Ames, Cloud.
George L. Graves,	Kiowa, Barber.
Joseph H. Harlin,	Tonganoxie, Leavenworth.
Nathaniel Lagerstrom,	Axtell, Marshall.
Roy V. Mitchell,	Groveland, McPherson.
Arthur G. Parkhurst,	Newton, Harvey.
Frank W. Reeves,	Manhattan, Riley.
David W. Socolofsky,	Tampa, Marion.
Scott Wilson,	Ozawkie, Jefferson.

BOILER AND ENGINE APPRENTICES.

Isaac N. Buckley,	Aurora, Cloud.
John W. Munson,	Atchison, Atchison.

APPRENTICE IN PRINTING.

Louie Grace Morgan,	Smith Center, Smith.
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SUMMARY.

CLASSES.	Men.	Women.	Totals.
Graduate.....	10	16	26
Senior.....	73	44	117
Junior.....	82	40	122
Sophomore.....	127	71	198
Freshman ¹	190	99	289
Preparatory.....	376	124	500
Special.....	20	10	30
Dairy.....	24	.....	24
Farmers' Short Course.....	99	.....	99
Domestic Science Short Course.....	1	87	88
Apprentices.....	11	1	12
Counted twice.....	21	22	43
Totals.....	992	470	1,462

From ninety-five counties of Kansas, 1450.

From five other states, 12.

RECORD OF ATTENDANCE.

1879-1905.

COLLEGE YEAR.	Domestic science short course....	Farmers' short course.....	Dairy	Apprentices.....	Special.....	Preparatory*... ..	First year.....	Second year.	Third year.....	Fourth year.	Postgraduate....	Counted twice...	Total	Graduated
1878-79	.....	.....	.....	.....	1	.....	89	89	16	12	.....	.....	207	9
1879-80†	.....	.....	.....	.....	1	.....	166	61	35	11	2	.....	276	7
1880-81‡	.....	.....	.....	.....	6	.....	178	48	24	9	2	.....	267	8
1881-82	.....	.....	.....	.....	5	.....	227	50	19	11	.....	.....	312	9
1882-83	.....	.....	.....	.....	4	.....	241	60	30	12	.....	.....	347	12
1883-84	.....	.....	.....	.....	2	.....	255	92	26	18	2	.....	395	17
1884-85	.....	.....	.....	.....	2	.....	271	71	36	16	5	.....	401	14
1885-86	.....	.....	.....	.....	1	.....	273	91	35	24	4	.....	428	21
1886-87	.....	.....	.....	.....	.....	.....	303	100	44	24	10	.....	481	21
1887-88	.....	.....	.....	.....	.....	.....	305	92	46	27	2	.....	472	22
1888-89†	.....	.....	.....	.....	.....	.....	266	103	41	28	7	.....	445	25
1889-90	.....	.....	.....	.....	1	.....	307	105	63	28	10	.....	514	27
1890-91†	.....	.....	.....	.....	.....	.....	343	135	50	53	12	.....	593	52
1891-92	.....	.....	.....	.....	.....	.....	336	139	62	37	10	.....	584	35
1892-93	.....	.....	.....	.....	.....	.....	339	110	66	43	29	.....	587	39
1893-94	.....	.....	.....	.....	.....	.....	275	141	72	42	25	.....	555	39
1894-95	.....	.....	.....	.....	5	.....	276	108	89	64	30	.....	572	57
1895-96	.....	.....	.....	.....	3	.....	353	121	67	71	32	.....	647	66
1896-97*	.....	.....	.....	.....	6	67	321	163	69	62	46	.....	734	55
1897-98	.....	.....	6	9	15	77	316	174	77	82	57	10	803	69
1898-99	.....	.....	26	35	40	110	306	177	92	65	40	21	870	53
1899-00†	24	47	57	50	32	162	376	163	109	69	27	22	1094	58
1900-01	47	109	72	79	23	318	348	183	80	74	40	52	1321	60
1901-02	41	125	66	87	19	298	396	206	120	65	32	59	1396	52
1902-03	63	123	38	78	36	342	471	229	141	86	24	57	1574	54
1903-04†	51	122	16	72	33	443	403	206	161	114	20	36	1605	102
1904-05†	88	99	24	12	30	500	289	198	122	117	26	43	1462	....

* Previous to 1896-'97 the preparatory students were not listed separately from the first-years.

† Requirements for admittance raised. ‡ Course strengthened.

Graduates.

This list is made from the best data obtainable. A favor will be conferred by notifying the College Secretary of any errors or changes.

1867.

- Henry L. Denison, A. M., 1257 Clarkson street, Denver, Colo. Official court stenographer.
- Belle M. (Haines) Pond, A. M., 1821 Clay street, Topeka, Kan. Housewife.
- Emma Laura (Haines) Bowen, A. M., Manhattan, Kan. Field secretary W. B. M. I.
- John J. Points, A. M., box 1057, Omaha, Neb. Secretary Kitchen Bros. Hotel Company.
- Martha A. (White) Abbott, A. M., 288 Oakley boulevard, Chicago, Ill. Housewife.

1871.

- Emily M. (Campbell) Robinson, A. B. Died in 1877.
- Ellen F. (Denison) Whedon, A. B., 1845 D street, Lincoln, Neb. Housewife.
- Luella M. Houston, A. B., 1216 South Tenth street, Denver, Colo. Music teacher.
- Charles O. Whedon, B. S., 1845 D street, Lincoln, Neb. Lawyer.
- Kate E. (White) Turley, A. B., 973 Jackson boulevard, Chicago, Ill. Housewife.

1872.

- Theophania M. (Haines) Huntington, A. B. Died in 1880.
- Albert Todd, A. M., St. Paul, Minn. Major artillery corps, military secretary's department, United States army.
- Samuel Wendell Williston, A. M., M. D., Ph. D., Walker Museum, University of Chicago, Chicago, Ill. Professor of paleontology.

1873.

- Eliza Z. (Davis) Stringfield, A. B., 1111 Santee street, Los Angeles, Cal. Housewife.
- Sam Kimble, A. B., Manhattan, Kan. Judge twenty-first district.

1874.

- Harry A. Brous, A. M., M. D., Manhattan, Kan. Physician.
- Edgar F. Clark, A. B.
- John E. Davis, B. S., D. D. S., 1143 Oak street, Columbus, Ohio. Dentist; miner and shipper of coal.
- William D. Gilbert, A. B. Government inspector of rural mail routes.
- A. Judson White, A. B., 288 Oakley boulevard, Chicago, Ill. Minister.

1875.

- Reuben E. Lofinck, B. S., Manhattan, Kan. Merchant.
- Alice E. (Stewart) Points, A. M., 40 Vroom street, Jersey City, N. J. Teacher city schools.

1876.

George A. Gale, A. B., Mangonia, Fla. Merchant and postmaster.
 Ella M. (Gale) Kedzie, A. B., Michigan Agricultural College. Teacher of art.
 Nellie (Sawyer) Kedzie-Jones, M. S., 421 Pearl street, Kalamazoo, Mich. Housewife.
 Carrie M. Kimball, A. B., R. F. D. No. 2, Santa Ana, Cal. Housekeeper.
 Minerva E. (Whitman) Heiser, A. B., Lyndon, Kan. Housewife.

1877.*

Ella S. Child, Manhattan, Kan. Dressmaker.
 George H. Failyer, M. S., Washington, D. C. Scientist in bureau of soils, United States Department of Agriculture.
 John S. Griffing, M. S., R. F. D. No. 16, Tecumseh, Kan. Farmer.
 Walter C. Howard, Newcastle, Placer county, California. Minister.
 Frederick O. Hoyt, M. D. Died in 1884.
 Louis E. Humphrey, Chapman, Kan. Druggist.
 James F. La Tourette, Sitka, Alaska. Assistant, Sitka Industrial Training School.
 Marion F. Leasure, LL. B., La Cygne, Kan. Lawyer.
 William Ulrich, M. S., Chautauqua, Ill.

1878.*

Albert N. Godfrey, M. S., box 272, Port Townsend, Wash. Deputy collector, United States customs service.
 Charles S. McConnell. Died in 1902.
 George S. Platt. Died in 1878.
 Amos E. Wilson, 1008 S. Fourth street, Leavenworth, Kan. Bank cashier and president Missouri Valley Bridge and Iron Company.

1879.*

Arthur T. Blain, Duarte, Cal. Nurseryman.
 Etta (Campbell) Blain, Duarte, Cal. Housewife.
 Wilmer K. Eckman, Longview, Tex. Bank cashier.
 Corvin J. Reed, R. F. D. No. 1, Havensville, Kan. Farmer.
 Harry C. Rushmore, 2024 North Fifth street, Kansas City, Kan. Traveling salesman for Norvell-Shapleigh Hardware Company.
 Wm. H. Sikes, Leonardville, Kan. Merchant.
 Lewis A. Salter, Carmen, Okla. Attorney at law.
 Ella (Vincent) McCormick, Clay Center, Kan.
 Clarence E. Wood, A. B., Cherokee, Okla. Editor.

1880.*

Augustine Beacham. Died about 1890.
 Lizzie R. (Cox) Kregar, 503 W. First street, Junction City, Kan. Housewife.
 Emma (Hoyt) Turner, Fort Scott, Kan. Housewife.
 Emma (Knostman) Huse, Manhattan, Kan. Housewife.
 Grace (Parker) Perry, Pocatello, Idaho. Housewife.
 Noble A. Richardson, 780 Fifth street, San Bernardino, Cal. Merchant.
 Marie E. (Sickels) Davis. Died in 1894.

*B. S. has been granted all graduates since 1877.

1881.*

- Flora (Donaldson) Reed, R. F. D. No. 1, Havensville, Kan. Housewife and journalist.
- Ulysses Grant Houston, Amherst, Mass. Lecturer on Bible lands and archaeology.
- Fletcher M. Jeffery, 612 New York block, Seattle, Wash. Lawyer.
- William J. Jeffery. Died in 1900.
- Darwin S. Leach.
- William J. Lightfoot, Montrose, Colo. Engineer United States reclamation service.
- Dalinda (Mason) Cotey, 210 W. First South street, Logan, Utah. Dean of school of domestic science and arts, State Agricultural College of Utah.
- Wirt S. Myers, P. O. box 796, Pensacola, Fla. Pattern-maker in department of steam engineering, Pensacola navy-yard.

1882.*

- J. Chester Allen. Died in 1885.
- Ida (Cranford) Sloan, 2524 Gould avenue, Fort Worth, Tex. Housewife.
- Edward V. Cripps.
- Warren Knaus, M. S., 512 S. Main street, McPherson, Kan. Editor and proprietor of *Democrat*.
- Mattie E. (Mails) Coons, Manhattan, Kan. Housewife.
- Allie S. (Peckham) Cordry, 1231 Forest avenue, Parsons, Kan. Housewife.
- Belle (Selby) Curtice, 604 American Bank, Kansas City, Mo. Housewife.
- Burton L. Short, 330 North Seventh street, Kansas City, Kan. Assistant postmaster.
- John A. Sloan, Corpus Christi, Tex. United States meat inspector.

1883.*

- James W. Berry, Jewell, Kan. Lumberman and contractor; Regent Kansas State Agricultural College.
- Mary C. (Bower) Ady, Romulus, Okla. Housewife.
- Lewis W. Call, LL. M., D. C. L., 1660 Sheridan avenue, Washington, D. C. Chief clerk, judge-advocate general's office, United States War Department.
- Emma E. Glossop, 1326 Francis street, St. Joseph, Mo. Journalist.
- William J. Griffing, R. F. D. No. 1, Manhattan, Kan. Farmer and fruit-grower.
- Phoebe E. Haines, M. S., Manhattan, Kan. At home.
- Hortense L. (Houston) Martin, 501 Warren street, Miami, I. T. Housewife.
- Jacob Lund, M. S., Manhattan, Kan. Superintendent of heat and power department, Kansas State Agricultural College.
- Katie I. (Meguire) Sheldon.
- J. Dana Needham, Lane, Kan. Merchant.
- Milan T. Ward, M. D., Toulon, Ill. Physician.
- Julius T. Willard, M. S., Manhattan, Kan. Professor of chemistry, Kansas State Agricultural College; director Experiment Station.

1884.*

- Emmett S. Andress, Lakin, Kan. Farmer.
- Florence J. Brous, 903 Minnesota avenue, Kansas City, Kan. Teacher of history in high school.
- Bartholomew Buchli, M. S., D. V. S., Alma, Kan. Farmer and stockman.

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John H. Calvin, LL. B. Died in 1898.
 William A. Corey, Los Angeles, Cal., care of "Common Sense."
 Henry M. Cottrell, M. S., Elgin, Ill. Cottrell Feed Company.
 Carrie F. (Donaldson) Brown. Died in 1902.
 Florence A. Donaldson. Died in August, 1888.
 Frank W. Dunn.
 I. Day Gardiner. Died in 1899.
 Edwin H. Kern, 537 Main street, Grand Junction, Colo. Civil engineer.
 Marion M. Lewis. Died in 1895.
 Charles L. Marlatt, M. S., 1440 Massachusetts avenue, N. W., Washington, D. C.
 Entomologist in charge of experimental field-work, United States Department
 of Agriculture.
 Lincoln H. Neiswender, Silver Lake, Kan. Farmer.
 Geo. C. Peck, Junction City, Kan. Grain buyer and agent for Midland Eleva-
 tor Company.
 Hattie L. (Peck) Berry, Jewell, Kan. Housewife.
 John W. Shartel, Oklahoma, Okla. Lawyer.

1885.*

Thomas Bassler, R. F. D. No. 2, Ponca, Okla. Farmer.
 Albert Deitz, 2747 Holly street, Kansas City, Mo. Grocer and butcher.
 Geo. E. Hopper, M. S., 303 N. Third street, Arkansas City, Kan. Contractor.
 Florence F. Hough, Great Bend, Kan.
 Frank A. Hutto, M. S., Ph. D., Stillwater, Okla. Professor of history and po-
 litical economy, Oklahoma Agricultural and Mechanical College.
 J. Allen Lewis, M. S., C. E., 377 Eighth street, Brooklyn, N. Y. Civil engineer.
 Nellie J. Murphy, Sterling, Kan. Nurse.
 Arthur L. Noyes, R. F. D. No. 1, Zeandale, Kan. Farmer and stock-raiser.
 Clarence D. Pratt, 347 Elm street, Dallas, Tex. Secretary Lincoln Paint and
 Color Company.
 Rollin R. Rees, Minneapolis, Kan. District judge.
 Frederick J. Rogers, M. S., 4 Lasnen street, Stanford University, Cal. Assist-
 ant professor of physics, Leland Stanford Jr. University.
 Dorothy E. C. (Secret) Hungerford, Randolph, Kan. Housewife.
 Grace L. Wonsetler, M. D., R. F. D. No. 1, Hoisington, Kan. Physician.
 Effie E. (Woods) Shartel, Oklahoma, Okla. Housewife.

1886.*

Lillie B. Bridgman, M. S., 530 Guerrero street, San Francisco, Cal. Teacher of
 physics, California School of Mechanical Arts.
 Louis P. Brous, M. S., 2289 Apartado, Mexico City, Mexico. Engineer-architect
 for La Internacional S. A.
 Paul Halsted Fairchild, M. D., 160 William street, New York city. Manufactur-
 ing chemist and president Pulvola Chemical Company.
 Abbott M. Green, Lookout, Modoc county, California. Civil engineer and real-
 estate agent.
 James G. Harbord, M. S., Zamboanga, Mind., P. I. Captain United States
 army, Eleventh cavalry, assistant chief Philippine constabulary.
 John U. Higinbotham, 205 La Salle street, Chicago, Ill. Assistant treasurer of
 National Biscuit Company.

*B. S. has been granted all graduates since 1877.

- Maria C. (Hopper) Getty, Downs, Kan. Housewife.
 E. Ada (Little) MacEwan, 314 Elm street, Kalamazoo, Mich. Housewife.
 Frank L. Parker, Hutchinson, Kan. Stock-raiser and fruit-grower.
 Edward H. Perry, 231 W. Twelfth street, Oklahoma, Okla. Real-estate broker.
 H. Augustus Platt. Died in 1903.
 Ada H. (Quinby) Perry, 231 W. Twelfth street, Oklahoma, Okla. Housewife.
 Ida H. (Quinby) Gardiner, 1514 Laguna street, Santa Barbara, Cal. Housewife.
 Minnie Reed, M. S., Kamehameha manual school, Honolulu, H. I. Teaching geography, physiography and English in manual-training school for native boys.
 David G. Robertson, 153 La Salle street, Chicago, Ill. Lawyer.
 Edward O. Sisson, A. B., 101 Fayerweather street, Cambridge, Mass. Graduate scholar in education and philosophy, Harvard University.
 John W. Van Deventer, box 653, Denver, Colo. Writer.
 George W. Waters, Dillon, Colo. Stock-raiser and dairyman.
 William E. Whaley, 117 Maroon heights, Chicago, Ill. Instructor at University of Chicago.
 F. Henrietta (Willard) Calvin, Manhattan, Kan. Professor of domestic science, Kansas State Agricultural College.
 John L. Wise, Pocahontas, Ill. Dealer in hay and live stock.

1887.*

- Edgar A. Allen, U. S. Indian office, Washington, D. C. Special United States Indian agent.
 Fred H. Avery. Died in 1896.
 Claude M. Breese, M. S., Manhattan, Kan. County clerk.
 John B. Brown, M. S., Morris, Minn. Superintendent Indian industrial school.
 Walter J. G. Burtis, R. F. D. No. 2, Fredonia, Kan. Farmer and stock-breeder.
 Mark A. Carleton, M. S., 3409 Brown street, Washington, D. C. Cerealist in bureau of plant industry, United States Department of Agriculture.
 Nellie E. (Cottrell) Stiles, Fullerton, Cal. Housewife.
 Bert R. Elliott, Dawson City, British Yukon Territory. Miner.
 Frederick B. Elliott, Manhattan, Kan. Real-estate and insurance agent.
 Clara M. Keyes, Warner, Cal. Teacher.
 Fred. G. Kimball, Nome, Alaska. Miner.
 Frederick A. Marlatt, Manhattan, Kan. Proprietor Blue Valley Manufacturing Company.
 William J. McLaughlin.
 Mary E. Moses, Manhattan, Kan. At home.
 Charles A. Murphy, Nickerson, Kan. Editor and proprietor of the *Argosy*.
 Orlando G. Palmer, LL. M., Manila, P. I. Second lieutenant, Seventh United States cavalry.
 Louis B. Parker. Died in 1889.
 James E. Payne, M. S., Buena Vista, Colo. Agriculturist and plant-breeder for American Crude Rubber Company.
 Seward N. Peck, Railway Exchange building, Chicago, Ill. Chief draftsman for Santa Fe system.
 George N. Thompson, Belmond, Iowa. Mechanic.
 Willis M. Wright, Jennings, La. Assayer in oil refinery.

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1888.*

Grant Arnold, Toledo, Wash. General merchandise and house furnishings.
 Bertha H. Bacheller, M. S., 3123 Campbell street, Kansas City, Mo. Director of domestic science, manual-training high school.
 Clement G. Clarke, 601 Sixth street, S. E., Minneapolis, Minn. Pastor of First Congregational church.
 Alexander C. Cobb, Wagoner, I. T. Farmer and carpenter.
 Mattie (Cobb) Clarke, 601 Sixth street, S. E., Minneapolis, Minn. Housewife.
 Minnie H. Cowell, Steyning, Sussex, England. Trained nurse.
 Lyman H. Dixon, 36 E. Twentieth street, New York city. Architect.
 David G. Fairchild, M. S., Washington, D. C. Agricultural explorer, in charge of foreign explorations, United States Department of Agriculture.
 Carl E. Friend, Soldier, Kan. Lumberman.
 John R. Harrison, Federal building, Kansas City, Mo. Post-office inspector in charge.
 Humphrey W. Jones, 1251 Lincoln street, Topeka, Kan. Principal of Branner school.
 Nathan E. Lewis, 169 N. Jefferson street, Newcastle, Pa. Draftsman Carnegie Steel Company.
 Abby L. Marlatt, M. S., 272 Benefit street, Providence, R. I. Teacher household economics and assistant principal, technical high school.
 William C. Moore, Parsons, Kan. Editor and publisher.
 Ernest F. Nichols, Columbia University, New York, N. Y. Professor of experimental physics at Columbia University.
 Harry E. Robb, Eureka, Kan. Farmer and county surveyor.
 Anna Snyder, Lebo, Kan. Telephone exchange.
 Edwin H. Snyder, 2924 Gallup avenue, Denver, Colo. Editor and publisher.
 Oliver L. Utter, A. M., S. T. B., 1902 Freeman avenue, Cincinnati, Ohio. Minister.
 Aaron Walters. Died in 1892.
 Lora L. (Waters) Beeler, M. S., Glen Ellyn, Ill. Housewife.
 Daniel W. Working, R. F. D. No. 2, Capitol Hill station, Denver, Colo. County superintendent; writer; beekeeper.

1889.*

Emma A. Allen. Died in 1891.
 Joseph W. Bayles, A. B., Onaga, Kan. Minister.
 Walter R. Browning, Padonia, Kan. Grain dealer.
 David E. Bundy, Julian, Neb. Minister.
 Samuel S. Cobb, Wagoner, I. T. Postmaster and stockman.
 Judson H. Criswell, Oswego, Kan. Foreman on Deming ranch.
 Mattie I. (Farley) Carr, Winthrop, Okanogan county, Washington. Teacher.
 Clarence E. Freeman, M. S., E. E., Armour Institute, Chicago, Ill. Director of department of electrical engineering.
 Hattie L. (Gale) Sanders, Mangonia, Fla. Housewife.
 John S. Hazen, 876 N. Jefferson street, Springfield, Mo. Observer in charge, United States weather office.
 Albert B. Kimball, Fairland, I. T. Telephone exchange.
 William Knabb, 301 N. Third street, Hiawatha, Kan. Cashier First National Bank.

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Mary Cornelia Lee, Manhattan, Kan. City librarian.
 Alonzo A. Mills, Anaheim, Cal. Fruit, nut and vegetable rancher.
 Susan W. (Nichols) Eshelman, 926 Felix street, St. Joseph, Mo. Housewife.
 Walter H. Olin, M. S., Fort Collins, Colo. Professor of agronomy, State Agricultural College.
 Eli M. Paddleford, A. B., S. T. B., Birmingham, Kan. Minister.
 Maude F. (Sayers) DeLand, lock box 390, Pittsburg, Pa. Housewife.
 Florine (Secrest) Linderman, Capay, Yolo county, California. Housewife.
 Stanley Snyder, Oskaloosa, Kan. Farmer.
 Charles W. Thompson, D. D. S., Holton, Kan. Dentist.
 Jane Chapin Tunnell, 218½ N. Hickory street, Joliet, Ill. Instructor in English, township high school.
 Ina M. (Turner) Bruce, 4136 Connecticut street, St. Louis, Mo. Housewife.
 Robert U. Waldraven, 314 S. Sixth street, Atchison, Kan. Minister.
 Henry S. Willard, M. D., Manhattan, Kan. Physician and druggist.

1890.*

Samuel I. Borton, Olive street, Lamar, Colo. Agriculturist, American Beet Sugar Company.
 Frank A. Campbell, B. A., 525 Kansas avenue, Topeka, Kan. Sign writer.
 Arthur Fulton Cranston, LL. B., 1531 Stevens avenue, Parsons, Kan. Lawyer.
 John Davis, Alva, Okla. Teacher of English, Oklahoma Normal School.
 Grant W. Dewey, Manhattan, Kan. Photographer.
 Charles J. Dobbs, 418 New York Beach, Seattle, Wash. Lawyer.
 Charles W. Earle, 1942-1948 Curtis street, Denver, Colo. Signs.
 Schuyler C. Harner, Keats, Kan. Merchant and grain dealer.
 John W. Ijams, Fort Belknap agency, Harlem, Mont. Farmer in United States Indian service.
 Bertha S. (Kimball) Dickens, M. S., Manhattan, Kan. Housewife.
 Eusebia (Knipe) Curtis, 841 Garfield avenue, Kansas City, Kan. Housewife.
 Nellie P. (Little) Dobbs, 418 New York Beach, Seattle, Wash. Housewife.
 Ellsworth Thomas Martin, LL. B., 1402-100 Washington street, Chicago, Ill. Lawyer.
 Silas C. Mason, M. S., Berea, Ky. Professor of horticulture and forestry, Berea College.
 Wilton L. Morse, Mancos, Colo. Principal of school.
 Albert E. Newman, Texas City, Tex. Carpenter and contractor.
 Julia R. Pearce, bureau of soils, Washington, D. C. In charge of mechanical analysis laboratory, bureau of soils, United States Department of Agriculture.
 Emil C. Pfuetze, Manhattan, Kan. Lumber dealer.
 William H. Sanders, Mangonia, Fla. Plumber and builder.
 Emma Secrest, A. M. Died in 1898.
 Marie Barbara (Senn) Heath, M. S., 3427 Colby ave., Everett, Wash. Housewife.
 Ralph Snyder, Oskaloosa, Kan. Farmer and stockman.
 George E. Stoker, A. B., 611 Kansas avenue, Topeka, Kan. Lawyer.
 Walter T. Swingle, M. S., 3317 Seventeenth street, N. W., Washington, D. C. Physiologist, bureau of plant industry, United States Department of Agriculture.
 Gilbert J. VanZile. Died in 1899.
 Harry N. Whitford, M. S., Ph. D., Gov. laboratories, Manila, P. I. Botanist.
 Thomas E. Wimer. Died in 1890.

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1891.*

- William Aaron Anderson, 4218 W. Prospect Place, Kansas City, Mo. Manager Pacific coast lumber and shingle department, Long-Bell Lumber Company.
- William Sherman Arbuthnot, D. V. S., Lebanon, Kan. Druggist.
- Herman William Avery, R. F. D. No. 2, Wakefield, Kan. Farmer and breeder of Percheron horses.
- Judd Noble Bridgman, M. S., A. B., 1224 Quindaro Boulevard, Kansas City, Kan. Civil engineer.
- Robert James Brock, Manhattan, Kan. Lawyer.
- Francis Charles Burtis, M. S., Stillwater, Okla. Professor of agriculture, Oklahoma Agricultural and Mechanical College.
- Charles Albert Campbell, 2123 Lafayette street, Denver, Colo. Clergyman.
- Spencer Norman Chaffee, M. D., Morganville, Kan. Physician and surgeon.
- Clay Ephraim Coburn, M. D., 908 Orville avenue, Kansas City, Kan. Physician.
- Gertrude Coburn, 424 Topeka avenue, Topeka, Kan. Domestic science teacher.
- Tina Louise (Coburn) Tomson, 111 North Sixteenth street, Cedar Rapids, Iowa. Housewife.
- Rachel Callie (Conwell) Thoburn, Guthrie, Okla. Housewife.
- Christine Mossman Corlett, Guthrie, Okla. Teacher.
- Mary Emmeline (Cottrell) Payne, M. S., Buena Vista, Colo. Housewife.
- Phil Sheridan Creager, 3904 McGee street, Kansas City, Mo. Telegraph editor on *Kansas City Journal*.
- Kary Cadmus Davis, M. S., Ph. D., Menomonie, Wis. Principal Dunn county school of agriculture and domestic economy.
- Thomas Clarke Davis, Benedict, Kan. Farmer and oil prospector.
- Helen Pearl (Dow) Peck, 269 Marlborough road, Brooklyn, N. Y. Housewife.
- Anna (Fairchild) White, Palo Alto, Cal. Housewife.
- Harry Benson Gilstrap, Chandler, Okla. Postmaster and publisher *News*.
- Almon Arthur Gist, 1402 North Washington street, Junction City, Kan. Clerk, quartermaster's department, Fort Riley.
- Amy Myrtle (Harrington) Deibler, 120 East Tenth street, Leadville, Colo. Housewife.
- Delpha May (Hoop) Montgomery, Manhattan, Kan. Housewife.
- Mayme Amelia (Houghton) Brock, Manhattan, Kan. Housewife.
- Willis Wesley Hutto, Manhattan, Kan. Teacher in city schools.
- George Victor Johnson, Cedarvale, Kan. Farmer.
- Frank Mullett Linscott, D. V. S., Farmington, Kan. Farmer.
- Bessie Belle Little, 2401 North College avenue, Philadelphia, Pa. Student, Woman's Medical College.
- Albert Edward Martin, B. A.
- Nellie Evangeline (McDonald) Thayer. Died in 1902.
- David Collins McDowell, Elkton, Colo. Cashier, Colorado Trading and Transfer Company.
- Alfred Midgley, Minneapolis, Kan. Manager lumber-yard.
- Madeleine Wade Milner, 125 Locust street, DeKalb, Ill. Librarian, State Normal School.
- Paul Chambers Milner, Carbondale, Ill. Farmer.
- Harry Elbridge Moore, Watonga, Okla. Creamery and ice plant.
- John Otis Morse, Mound City, Kan. Lawyer and county attorney.
- Hattie May Noyes, R. F. D. No. 1, Zeandale, Kan. Book agent, International Publishing Company.
- Louise (Reed) Paddleford, Birmingham, Kan. Housewife.

*B. S. has been granted all graduates since 1877.

Artemus Jackson Rudy, R. F. D. No. 1, Oleander, Cal. Fruit-grower.
 Henry Vernon Rudy, R. F. D. No. 1, Fresno, Cal. Fruit-grower.
 Charlotte Jane (Short) Houser, M. S., [B. S. Dickinson College, Carlisle, Pa.,]
 Temple, Tex. Housewife.
 Ben Skinner, M. D., Wetmore, Kan. Physician and surgeon.
 Caroline Scott (Stingley) Van Blarcom. Died in 1899.
 Lillian Alice (St. John) Williams, 841 Osage avenue, Kansas City, Kan. House-
 wife.
 Ellis Cheney Thayer, 2502 West Thirty-second avenue, Denver, Colo. Teacher
 mechanical drawing and manual training in high school.
 Sam L. Van Blarcom, M. D., 817 Garfield avenue, Kansas City, Kan. Railway
 postal clerk.
 Frank Albert Waugh, M. S., Amherst, Mass. Professor of horticulture in Mas-
 sachusetts Agricultural College.
 Fannie Elizabeth (Waugh) Davis, M. S., Menomonie, Wis. Housewife.
 Flora Emilie Wiest, Manhattan, Kan. Teacher in city schools.
 Bertha (Winchip) Spilman, 324 Fifth street, S. E., Washington, D. C. House-
 wife.
 Alfred Orrin Wright, Siloam Springs, Ark. Insurance agent.
 Effie Jeanetta Zimmerman, M. S., Moray, Kan. Chautauqua instructor and
 lecturer.

1892.*

Grace Maria Clark, M. S. Died in 1904.
 George L. Clothier, M. S., M. F., Washington, D. C. Field assistant, bureau of
 forestry, United States Department of Agriculture.
 Lillian Clyde Criner, McPherson, Kan. Editor and publisher of *Opinion*.
 Harry A. Darnall, Lents, Ore. Principal of city schools.
 William H. Edelblute, Rathdrum, Idaho. County surveyor and fruit-grower.
 Elizabeth (Edwards) Hartley, Manhattan, Kan. Housewife.
 John Frost, Schroyer, Kan. Farmer.
 Effie (Gilstrap) Frazier, Chandler, Okla. Assistant postmaster.
 Ava (Hamill) Tillotson, M. S., Newton, Kan. Student of pharmacy, Kansas
 University.
 J N Harner. Died in 1897.
 Loyall S. Harner, 1120 Hayes avenue, Colorado Springs, Colo. Employed by
 Portland Gold Mining and Milling Company.
 Charles Pinckney Hartley, M. S., Washington, D. C. Assistant in bureau of
 plant industry, United States Department of Agriculture.
 John William Abraham Hartley, Manhattan, Kan. Farmer.
 James Laird McDowell, McCammon, Idaho. Rancher and market gardener.
 Robert A. McIlvaine, Shoshone Agency, Wyo. Teacher in Government Indian
 school.
 Kate (Oldham) Sisson, 1619 Highland street, Columbus, Ohio. Housewife.
 Daniel Henry Otis, M. S., Oswego, Kan. Superintendent of Deming stock ranch.
 Ivan Bryan Parker, M. D., Grant's Pass, Ore. Physician and surgeon; president
 Graham County State Bank, Hill City, Kan.; president Applegate Boom and
 Lumber Company, Grant's Pass, Ore.
 Warner S. Pope. Died in 1899.
 Burton Homer Pugh, drawer C, Topeka, Kan. B. H. Pugh Manufacturing
 Company.
 Elias W. Reed, M. D., Holton, Kan. Physician and surgeon.

*B. S. has been granted all graduates since 1877.

Robert Stirling Reed, Simpson, Kan. Dealer in lumber and coal.
 Arthur Daniel Rice, Strand, Neb. Minister.
 Fred C. Sears, M. S., Truro, Nova Scotia. Horticulturist, Nova Scotia Agricultural College.
 Birdie E. Secrest, D. S., Randolph, Kan. Clerk.
 May Secrest, 175 W. Eleventh avenue, Columbus, Ohio. Associate professor of domestic art, Ohio State University.
 Ruth Tipton (Stokes) Sears, M. S., Truro, Nova Scotia. Housewife.
 Harry W. Stone, Y. M. C. A. building, Portland, Ore. General secretary Y. M. C. A.
 Walter Percival Tucker, Aguascalientes, Aguas, Mexico. Accountant.
 Mary Alice (Vail) Waugh, Amherst, Mass. Housewife.
 Robert Lynn Wallis. Died in 1895.
 Ora Rebecca (Wells) Traxler, Irving, Kan. Housewife.
 Daniel F. Wickman, post-office box 107, Topeka, Kan. Nurseryman.
 George Washington Wildin, Meadville, Pa. Mechanical superintendent, Erie railway company.
 Charles Ernest Yeoman. Died in 1902.

1893.*

Edmund Clarence Abbott, 235 Cerrillos road, Santa Fe, N. M. District attorney and assistant solicitor general of New Mexico.
 Edwin McMaster Stanton Curtis, 1300 Pennsylvania avenue, Washington, D. C. Rate clerk, general passenger office, Southern railway.
 Corinne Louise (Daily) Burtis, Stillwater, Okla. Housewife.
 Laura Greeley Day, Menomonie, Wis. Instructor of domestic economy, Dunn county school of agriculture and domestic economy.
 Ione (Dewey) Sutherland, 3744 Lake avenue, Chicago, Ill. Stenographer, special assessment law department, city hall.
 Albert Dickens, M. S., Manhattan, Kan. Professor of horticulture, Kansas State Agricultural College.
 Mary Maud (Gardiner) Obrecht, M. S., 510 West High street, Urbana, Ill. Housewife.
 Susie (Hall) Linscott, Farmington, Kan. Housewife.
 Mary Frances Burgoyne Harman, high school, Kansas City, Kan. Teacher of drawing.
 Ivy Frances Harner, M. S., Manhattan, Kan. Investigating schools of domestic science in Europe.
 Margarethá Elise Horn, 874 Porter street, Detroit, Mich. Teacher of botany.
 Marcia Ione Hulett, D. O., 1208 New England building, Cleveland, Ohio. Osteopathic physician.
 Mac F. Hulett, D. O., 63 Wheeler building, 5½ West Broad, Columbus, Ohio. Osteopathic physician.
 Fred Hulse, Manhattan, Kan. Contractor and carpenter.
 Charles Augustus Kimball, Courtland, Kan. Editor and lawyer.
 Maud Ethel Knickerbocker, Lead, S. Dak. Teacher city schools.
 Thomas Eddy Lyon, LL. B., Sangamon Loan and Trust building, Springfield, Ill. Lawyer.
 William Otis Lyon, West Philadelphia shops, Pennsylvania railway, Philadelphia, Pa. Clerk.

*B. S. has been granted all graduates since 1877.

McLeod Wilson McCrea, Winchester, Kan. Teacher.
 Rose Edith McDowell, Elkton, Colo. At home.
 George Lane Melton, University of Chicago, Chicago, Ill. Student.
 Eusebia DeLong (Mudge) Thompson, Marysville, Kan. Housewife.
 Nora (Newell) Hatch, R. F. D. No. 2, Manhattan, Kan. Housewife.
 August Fred. Niemoller, Wakefield, Kan. Miller.
 Susie Amanda Noyes. Died in 1894.
 Henry Leamer Pellett, D. O., R. F. D. No. 4, Eudora, Kan. Breeder Red Polled cattle.
 Charles John Peterson, Randolph, Kan. Farmer.
 Carl Frederic Pfuetze, Manhattan, Kan. Railway postal clerk.
 John Dewitt Riddell, M. D., Enterprise, Kan. Physician.
 John Albert Rokes, Holton, Kan. Lawyer.
 Agnes (Romick) Edgar, Sisson, Cal. Housewife.
 Fred Raymond Smith, Manhattan, Kan. Lawyer and court stenographer.
 George Wildman Smith, M. D., 801 Linwood boulevard, Kansas City, Mo. Post-graduate student and lecturer at Kansas City Homeopathic Medical College; Physician.
 William Elmer Smith, 800 New York Life building, Kansas City, Mo. Lawyer.
 John Eugene Thackrey, S. T. B., 2746 Belleview avenue, Kansas City, Mo. Minister.
 Joseph B. Thoburn, Guthrie, Okla. Secretary Territorial Board of Agriculture.
 Charles Henry Thompson, M. S., St Louis, Mo. In charge of the succulent plants, Missouri Botanical Garden.
 George K. Thompson. Died in 1905.
 William James Yeoman, Mankato, Kan. Merchant and stock-raiser.

1894.*

Frank Weber Ames, room 519, Carnegie building, Pittsburg, Pa. Clerk, general agent's office, Carnegie Steel Company.
 Clara Francelia Castle, M. S., Manhattan, Kan. At home.
 George Luther Christensen, Houghton, Mich. Instructor in mechanical engineering, Michigan School of Mines.
 John Cornelius Christensen, Manhattan, Kan. County treasurer.
 Lorena Estella Clemons, Manhattan, Kan. Secretary Kansas State Agricultural College.
 Martha Cottrell, Wabaunsee, Kan. At home.
 Sarah Esther (Cottrell) Wright, Jennings, La. Housewife.
 Alverta May Cress, 813 W. Tenth street, Topeka, Kan. Teacher city schools.
 Fannie Jane Cress, 203 Washington street, Wheaton, Ill. Teacher, Escanaba, Mich.
 Ernest A. Donaven, M. D., Mounthope, Kan. Physician.
 Jephthah W. Evans, M. D., Council Grove, Kan. Physician and surgeon.
 Isabelle Russell (Frisbie) Criswell, Oswego, Kan. Housewife.
 Eugene Leonard Frowe. Died in 1898.
 Walter Harling. Died in 1903.
 Lorena Marguerite (Helder) Morse, 1100 W. Fortieth street, Kansas City, Mo. Housewife.
 Mark V. Hester, 257 Cedar avenue, Cleveland, Ohio. Student Cleveland Bible Training School.

* B. S. has been granted all graduates since 1877.

- Charles Ross Hutchings, 1013 W. Silver avenue, Argentine, Kan. Civil engineer.
 Isaac Jones, jr., Etiwanda, Cal. Fruit-grower.
 Stella Victoria (Kimball) Tucker, Aguascalientes, Aguas, Mexico. Housewife.
 Mary Eliza (Lyman) Otis, M. S., Oswego, Kan. Housewife.
 William Henry Moore, M. S., Manhattan, Kan. Florist and horticulturist.
 Sarah (Moore) Foster, 314 Melrose avenue, N. Seattle, Wash. Housewife.
 James Francis Odle, R. F. D. No. 1, Ogden, Kan. Farmer and stock-breeder.
 Charles Randolph Pearson, Collyer, Kan. Farmer.
 Horace Greeley Pope, LL. B., 3510 E. Tenth street, Kansas City, Mo. Member of law firm, Bird & Pope.
 Minnie Louise Romick, 567 N. Gordon street, Pomona, Cal. Teacher.
 Winnie Luella (Romick) Chandler, 608 E. Thirtieth street, Kansas City, Mo. Housewife.
 Victor Irvin Sandt, Wells, Minn. Instructor of science and manual training in high school.
 John Alfred Scheel, Emporia, Kan. Owner and operator of sawmill.
 Jacob Ulrich Secrest, Randolph, Kan. Farmer.
 Charles Chrisfield Smith, Manhattan, Kan. Newspaper work.
 Jennie Ruth (Smith) Strong, 223 Willow street, Ottawa, Kan. Housewife.
 Wesley Ohio Staver, box 305, El Paso, Tex. Chinese inspector, district of Texas, United States immigration service.
 John Stingley, Salina, Kan. Traveling salesman for Moline Plow Company.
 John Edwin Taylor. Died in 1896.
 Delbert L. Timbers, Osborne, Kan. Merchant.
 Phebe Carey (Turner) Clothier, St. Marys, Kan. Housewife.
 Samuel Robert Vincent, M. S., R. F. D. No. 2, Deer Creek, Okla. Farmer.
 Lucy Helena Waters, A. M., Santa Monica, Cal. Teacher of English and botany.

1895.*

- Edward Jones Abell, R. F. D. No. 2, Leonardville, Kan. Farmer and stock-raiser.
 Carl D. Adams, 720 Orville avenue, Kansas City, Kan. Weighing clerk at Swift's.
 Robert John Barnett, Manhattan, Kan. Assistant postmaster.
 Burton Wesley Conrad, Sabetha, Kan. Student Kansas City Veterinary College.
 Florence Ruth Corbett, M. S., department public charities, foot of East Twenty-sixth street, New York city. Departmental dietitian.
 Sid Henry Creager, Midland hotel, Kansas City Mo. Lumberman.
 Elsie Emeline Crump, Boulder, Colo. Teacher city schools.
 David Thomas Davies, Manhattan, Kan. Farmer.
 Frank Andrew Dawley, Waldo, Kan. Farmer and stock-raiser.
 Daisy Day, M. S., Onaga, Kan. At home.
 Flora (Day) Barnett, M. S., Manhattan, Kan. Housewife.
 George Adam Dean, Manhattan, Kan. Assistant in entomology, Kansas State Agricultural College.
 Lillie Christena (Dial) Falin, Cleburne, Kan. Housewife.
 Lucy Ellis, 334 Ann avenue, Kansas City, Kan. Teacher.
 Victor Emrick, 1034 East Main street, Portland, Ore. Clerk, ticket auditor's office, Oregon Railway and Navigation Company.
 George Forsyth, 201 South Main street, Franklin, Ind. Commercial traveler.
 Ernest Harrison Freeman, Armour Institute of Technology, Chicago, Ill. Instructor in electrical engineering.

*B. S. has been granted all graduates since 1877.

- Florence Eleanor (Fryhofer) Webster, The Columbia, No. 23, Washington, D. C. Housewife.
- George William Fryhofer, Monticello hotel, St. Louis, Mo. Lawyer.
- Oscar Hugo Halstead, Manhattan, Kan. Assistant professor of mathematics and graduate student, Kansas State Agricultural College.
- Hortensia (Harman) Patten, 307 N. Harvey avenue, Oak Park, Ill. Housewife.
- John Bright Harman, 412 Plateau avenue, Colorado City, Colo. Ranchman; fuel and feed merchant.
- Clarence V. Holsinger, R. F. D. No. 5, Rosedale, Kan. Horticulturist and nurseryman.
- Christian Andrick Johnson, Success, Kan. Farmer and stock-raiser.
- John James Johnson, Litchfield, Ill. Pullman car conductor.
- Fred Ralph Jolly, Paola, Kan. Editor of *Record*.
- William Irving Joss, 816 Columbia avenue, Philadelphia, Pa. Physician and postgraduate student.
- Maud Estella (Kennett) Darnall, Lents, Ore. Teacher.
- Myron Arthur Limbocker, Pomona, Kan. Cashier Citizens' State Bank.
- Samuel Alexander McDowell, Elkton, Colo. Miner.
- Laura Sara (McKeen) Smith, Russell, Kan. Housewife.
- Theo. Wattles Morse, M. S., 1100 W. Fortieth street, Kansas City, Mo. Agricultural advertiser.
- Oscar Albert Otten, Hebron, Neb. Agent C. R. I. & P. Rly. Co.
- William Hackworth Painter. Died in 1901.
- Charles Wesley Pape, M. S., Lincoln, Neb. With Beatrice Creamery Company.
- Ethel (Patten) Ames, 7438 Hermitage street, Pittsburg, Pa. Housewife.
- John Vernon Patten, 307 N. Harvey avenue, Oak Park, Ill. Manufacturer of heating apparatus.
- William H. Phipps, 311 Temple block, Kansas City, Mo. Manager with Empire Cream Separator Company.
- Alice Julia (Quintard) Peck. Died in 1899.
- Frederick Ellsworth Rader, Rampart, Alaska. Alaskan Experiment Station.
- Ralph Waldo Rader, Fayetteville, Ark. Fruit-grower, and secretary of Fayetteville Fruit growers' Association.
- Ada Rice, Manhattan, Kan. Instructor in English, Kansas State Agricultural College.
- Benjamin Franklin Simeon Royer, Clearmont, Mo. Physician and surgeon.
- Charles Baxter Selby, Sterling, Okla. Lawyer, editor, and United States court commissioner.
- Mabel Gertrude (Selby) Laughlin, Safford, Ariz. Housewife.
- Ernest P. Smith, 310 Peterson street, Fort Collins, Colo. Carpenter.
- Frederick John Smith, Russell, Kan. Editor and county clerk.
- Kitty Myrtle (Smith) Wheeler, Harlem, Mo. Housewife.
- Marietta Smith, Manhattan, Kan. Graduate nurse.
- William Henry Steuart, Winchester, Kan. Farmer.
- Cora Idella (Stump) Chaffee, Lasita, Kan. Housewife.
- Dora (Thompson) Winter, 2303 Wabash avenue, Kansas City, Mo. Housewife.
- Elven Creveling Trembly, Comiskey, Kan. Farmer and stock-raiser.
- George Carpenter Wheeler, Harlem, Mo. Manager of stock farm.
- Mary Elizabeth (Willard) Emrick, 1034 E. Main street, Portland, Ore. Housewife.
- Olive Mabel (Wilson) Holsinger, R. F. D. No. 5, Rosedale, Kan. Housewife.
- Ora Gertrude Yenawine, Anniston, Ala. Instructor in domestic art, Barber's Memorial Seminary.

*B. S. has been granted all graduates since 1877.

1896.*

- May Haines (Bowen) Schoonover, A. B., Beaver, Pa. Housewife.
 Con Morrison Buck, M. S., Marceline, Mo. Civil engineer for A. T. & S. F. Rly.
 Margaret Isaphene (Carleton) Doane, Hyattsville, Md. Housewife.
 William Annesley Cavanaugh, Manila, P. I. Captain, Sixth United States infantry.
 William Arthur Coe, Ford, Kan. Farmer.
 Charlotte Mabel (Cotton) Smith, 310 Peterson street, Fort Collins, Colo. Housewife.
 Ernest Brown Coulson, Cherokee, Okla. Civil engineer K. C. M. & O. Ry.
 George Henry Dial, Cleburne, Kan. Farmer and stock-raiser.
 Charles Francis Doane, M. S., College Park, Md. Dairyman and bacteriologist, Maryland Experiment Station.
 John Berthold Dorman, Ph. B., West New Brighton, N. Y. Teacher, New York city schools.
 Bradford Dougherty, 632-634 Minnesota avenue, Kansas City, Kan. Merchant.
 Charles Silas Evans, M. D., 3136 Harrison street, Kansas City, Mo. Physician.
 Robert Kilby Farrar, Downs, Kan. Superintendent of city schools.
 George William Finley, Tonkawa, Okla. Professor of mathematics, University Preparatory School of Oklahoma.
 Joanna Freeman. Died in 1897.
 John Jacob Fryhofer, 1810 Byers avenue, Joplin, Mo. Bookkeeper and cashier for Freeman foundry and machine works.
 Elmer George Gibson, 626 N. Summit street, Arkansas City, Kan. Engineering department, A. T. & S. F. railway.
 George Clifton Hall, Manhattan, Kan. Farmer and teacher.
 Alonzo Charles Havens, R. F. D. No. 4, Manhattan, Kan. Farmer.
 Gertrude Julia (Havens) Norton. Died in 1905.
 Lawrence Wilbur Hayes, 624 Van Buren street, Topeka, Kan. Check clerk, C. R. I. & P. freight depot.
 John Warren Holland, 25 Santa Monica street, Manila, P. I. General broker.
 Henry George Johnson, D. D. S., Lindsborg, Kan. Dentist.
 Susan Effie (Johnson) Cooper, Success, Kan. Housewife.
 Marian Elizabeth Jones, M. S., 417 W. One Hundred and Fourteenth street, New York city. Student Teachers' College, Columbia University.
 Thomas Lormer Jones, 921 Charlotte street, Kansas City, Mo. Piano tuner and salesman.
 Edward Clarence Joss, M. C. D., 3320 N. Seventh street, Tacoma, Wash. Inspector in charge of local office, bureau of animal industry, United States Department of Agriculture.
 Royal S. Kellogg, M. S., Washington, D. C. Agent bureau of forestry, United States Department of Agriculture.
 Mark Kirkpatrick, Ardmore, I. T. Real estate.
 Edith Lynette (Lantz) Simmons, 602 Spicer avenue, Victor, Colo. Housewife.
 Sue (Long) Strauss, 1241 Tyler street, Topeka, Kan. Housewife.
 Charles W. Lyman, Salina, Kan. Traveling salesman.
 Charles Dwain McCauley, Wilburn, Kan. Farmer.
 Charles Sumner Marty, Sun, Barber county, Kansas. Stockman.
 Elda Lenore (Keen) Moore, Manhattan, Kan. Housewife.
 Arthur Huston Morgan, R. F. D. No. 3, Long Island, Kan. Farmer and stock-raiser.

* B. S. has been granted all graduates since 1877.

- Clara Verena Newell, Glenville, Neb. At home.
 Ellen Elizabeth (Norton) Adams, Cheyenne Wells, Colo. Housewife.
 John Bitting Smith Norton, M. S., College Park, Md. Professor of botany,
 Maryland Agricultural College, and state pathologist.
 Hattie A. (Paddleford) McFadden, R. F. D. No. 1, Stockdale, Kan. Housewife.
 Mary Kerilla (Painter) Rogers, Ballaire, Okla. Housewife.
 Elva Luthera (Palmer) Thackrey, 2746 Bellevue avenue, Kansas City, Mo.
 Housewife.
 Inez Luella (Palmer) Barrows, Washington, Kan. Housewife.
 Fannie (Parkinson) Moyer, R. F. D. No. 1, Melvern, Kan. Housewife.
 Archie Carpenter Peck, Francis, I. T. Manager of cotton-gin.
 Arthur Louis Peter, M. D., 2041 Ogden street, Denver, Colo. Physician.
 Charles Edwin Pincomb, Merriam, Kan. Stockman.
 Mary Josephine (Pincomb) Moats, box 36, Tampico, Mexico. Housewife.
 John Poole, R. F. D. No. 2, Manhattan, Kan. Farmer.
 Edgar Arthur Powell. Died in 1904.
 Lisle Willits Pursel, 1318 Monroe avenue, Kansas City, Mo. Specialty salesman
 for Swift & Company.
 Howard Newton Rhodes, Manhattan, Kan. Cashier at Union Pacific freight
 depot.
 Ambrose Elliott Ridenour, Manhattan, Kan. Foreman of foundry, Kansas State
 Agricultural College.
 Mary Etta (Ridenour) Plowman, Jewell, Kan. Housewife.
 Isaac Archie Robertson, Manhattan, Kan. Clerk.
 Grace Anna Secrest. Died in 1902.
 Carl Snyder, Oskaloosa, Kan. Farmer.
 Max Gilbert Spalding, Eureka, Kan. Farmer.
 Orville Ashford Stingley, D. V. S., 1912 East Thirty sixth street, Kansas City,
 Mo. Meat inspector, bureau of animal industry, United States Department
 of Agriculture.
 Sadie (Stingley) Haggman, 1805 Michigan avenue (Boyle Heights), Los Angeles,
 Cal. Housewife.
 Gertrude Ella Stump, Manhattan, Kan. At home.
 Miriam Esther (Swingle) Joss, 3320 North Seventh street, Tacoma, Wash.
 Housewife.
 William Elwood Thackrey, Fort Shaw, Mont. Manual training teacher, Indian
 school.
 James Dunbar Trumbull, Riley, Kan. Merchant.
 Frank Edwin Uhl, 401 Washington avenue, Kansas City, Kan. Dairyman.
 Edwin H. Webster, M. S., The Columbia, No. 23, Washington, D. C. Chief
 dairy division, bureau of animal industry, United States Department of
 Agriculture.

1897.*

- Cora Atwell, 1125 West Third street, Topeka, Kan. At home.
 Roger Williams Bishoff, Colony, Okla. Industrial teacher, Seger Indian train-
 ing school.
 Mary Frances (Carnell) Roe, Dorrance, Kan. Housewife.
 William Burns Chase, Dodge City, Kan. Superintendent of telephone exchange.
 Frank E. Cheadle, Cherokee, Okla. Merchant.
 Robert Waitman Clothier, M. S., Cape Girardeau, Mo. Professor of chemistry
 and agriculture, Third District Normal School.

*B. S. has been granted all graduates since 1877.

- Maggie A. (Correll) Uhl, 401 Washington avenue, Kansas City; Kan. Housewife.
- Mabel (Crump) McCauley, 6021 Monroe avenue, Chicago, Ill. Housewife.
- Fred Volley Dial, 1208 Kentucky street, Lawrence, Kan. Assistant in museum, Kansas State University.
- Viola Grace Dille, 3519 Euclid avenue, Kansas City, Mo. Clerk, Meriden Creamery Company.
- Samuel Dolby. Died in 1903.
- George Doll, Lewis, Kan. Merchant.
- Anna Phillipina (Engel) Blackman, Manhattan, Kan. Housewife.
- Emma Finley, 625 North Garey avenue, Pomona, Cal. Teacher city schools.
- Martha (Fox) Smith, 923 Madison street, Topeka, Kan. Housewife.
- Philip Fox, M. S., Williams Bay, Wis. In charge of research in solar physics at Yerkes Observatory.
- Ned Merrill Green, presidio of Monterey, Cal. First Lieutenant, Fifteenth infantry, United States army.
- Mary Eliza Haulenbeck. Died in 1901.
- Lewellyn Gaines Hepworth, Burlingame, Kan. Traveling salesman.
- Ina Emma Holroyd, Manhattan, Kan. Assistant in preparatory department, Kansas State Agricultural College.
- Myrtle Hattie (Hood) Johnson, Success, Kan. Housewife.
- Charles Henry Hoop, Manhattan, Kan. Clerk.
- Winifred Anna (Houghton) Buck, Marceline, Mo. Housewife.
- Bret Redmon Hull, Manhattan, Kan. Hardware merchant.
- Clay Berkey Ingman, Barnes, Kan. Farmer.
- Gertrude May (Lyman) Hall, Hyattsville, Md. Housewife.
- Frederick Hugo Meyer, corner Fifth street and Barnett avenue, Kansas City, Kan. Creameryman.
- Valentine Maelzer, Patterson, Idaho. Teacher.
- Sherman Bodwell Newell, R. F. D. No. 3, Manhattan, Kan. Ranchman.
- Oliver Ezra Noble, Hobart, Okla. Surveyor and draftsman.
- Jesse Baker Norton, M. S., Washington, D. C. Assistant in physiology, bureau of plant industry, United States Department of Agriculture.
- Mary Augusta (Norton) Polson, Winkler, Kan. Housewife.
- Bertha Olivia Olson, Manhattan, Kan. At home.
- Hilda Sophia (Olson) Axelton, Randolph, Kan. Housewife.
- Russell John Peck, Gotebo, Okla. Farmer.
- William Oscar Peterson, Randolph, Kan. Principal of Ogden school; farmer.
- Eva Louise Philbrook, Plainville, Kan. Teacher.
- Rufus M. Philbrook, Hotel State, Walla Walla, Wash. Painter.
- William Joseph Rhoades, Olathe, Kan. Cashier in bank.
- Carl E. Rice, central police station, Manila, P. I. Patrolman.
- Thomas Meade Robertson, D. D. S., Coffeyville, Kan. Dentist.
- Homer Joseph Robison, Taal, Batanzas province, P. I. Hospital steward, United States army.
- Edward Shellenbaum, Randolph, Kan. Postmaster.
- Alice Myrtle Shofe, Manhattan, Kan. Teacher.
- Charles Wesley Shull, Winona, Kan. Dairyman and ranchman.
- Alfred Caleb Smith, 7503 Sunnyside avenue, Seattle, Wash. Electrician.
- Phoebe Jane Smith, 414 West Eighth street, Pueblo, Colo. Supervisor of sewing in city schools.
- Wilhelmina Henrietta Spohr, Manhattan, Kan. Teacher city schools.

- Charles Harrison Stokely, 3102 Cherry street, Kansas City, Mo. Collector for telephone company.
- John E. Trembly, Comiskey, Kan. Farmer and stock-raiser.
- Harriet Agnes (Vandivert) Remick, Manhattan, Kan. Housewife.
- Olive Voiles, 114 South Thirteenth street, Cedar Rapids, Iowa. Trained nurse.
- John Minton Westgate, M. S., Washington, D. C. Assistant, United States Department of Agriculture.
- Mark Wheeler, Manila, P. I. Captain, Sixteenth United States infantry.
- Clare Annie (Wilson) Dutton, Council Grove, Kan. Housewife.

1898.*

- Emory Sherwood Adams, Vancouver barracks, Vancouver, Wash. Second Lieutenant, Fourteenth United States infantry.
- Joshua William Adams, Cheyenne Wells, Colo. Ranchman.
- Samuel John Adams, Cheyenne Wells, Colo. Ranchman.
- Thomas Walter Allison, Florence, Kan. Fruit-grower.
- William Anderson, Manhattan, Kan. Assistant in mathematics, Kansas State Agricultural College.
- Jessie Geneva (Bayless) Staver, R. F. D. No. 1, Lenexa, Kan. Housewife.
- Hope Brady, Manhattan, Kan. Teacher city schools, Liberal, Kan.
- Robert Henry Brown, Manhattan, Kan. Assistant in music, Kansas State Agricultural College.
- Earl Carver Butterfield, 2317 Pennsylvania avenue, N. W., Washington, D. C. Assistant in horticulture, bureau of plant industry, United States Department of Agriculture.
- John Alfred Conover, corner Boone and Duff streets, Ames, Iowa. Assistant, animal husbandry department, Iowa State College.
- Minnie Laura Copeland, 722 Hinman avenue, Evanston, Ill. Surgical assistant to Dr. E. H. Pratt, 100 State street, Chicago.
- Lucy Maria (Cottrell) Pottorf, Riley, Kan. Housewife.
- Anna Magdalena (Dahl) Davis, R. F. D. No. 1, Montrose, Kan. Housewife.
- Inga Josephine Dahl, R. F. D. No. 1, Montrose, Kan. Teacher.
- Cassie Belle Dille, 3519 Euclid avenue, Kansas City, Mo. With Meriden Creamery Company.
- Emma Phillipine Doll, Larned, Kan. Teacher.
- Cora Elizabeth (Ewalt) Brown, Manhattan, Kan. Housewife.
- Guy Francis Farley, Melvern, Kan. Lecturer and reader.
- Mary (Finley) Ridenour, Manhattan, Kan. Housewife.
- Arthur Lorenzo Frowe. Died in 1904.
- William Logan Hall, M. S., Washington, D. C. Assistant forester, in charge of tree planting, United States Department of Agriculture.
- Anna Viola (Hanson) Higinbotham, Manhattan, Kan. Housewife.
- Walter Eugene Hardy, 211 E. Eleventh street, Kansas City, Mo. Retail confectionery merchant.
- James Madison Harvey, R. F. D. No. 1, Ogden, Kan. Farmer.
- Emmett Vivian Hoffman, Enterprise, Kan. Manager, C. Hoffman & Son, secretary Hoffman Elevator Company, and president Kansas Concrete Stone Company.
- Guy Dudley Hulett, D. O. Died in 1904.
- Bertha Emma Ingman, Barnes, Kan. At home.

* B. S. has been granted all graduates since 1877.

- Ary Cordelia (Johnson) Butterfield, 437 Hardesty avenue, Kansas City, Mo. Housewife.
- Charles Percy King, Baxter Springs, Kan. Lumberman.
- Bessie May (Lock) Noble, Hobart, Okla. Housewife.
- Olive Long. Died in 1902.
- William Andrew McCullough, M. D. Manhattan, Kan. Physician.
- Inez Isadore (Manchester) Allison, Florence, Kan. Housewife.
- Florence Adelia Martin. Died in 1901.
- Henry Alba Martin, Admire, Kan. Creamery man and farmer.
- Alice Maude Melton, Manhattan, Kan. Clerk in director's office, Kansas Experiment Station.
- George Gerkein Menke, Garden City, Kan. Stock-breeder.
- Mary Frances Minis, Manhattan, Kan. Office assistant, E. B. Purcell Trading Company.
- May (Moore) Dakin, 706 N. Lawrence street, Wichita, Kan. Housewife.
- Harriet Grace (Nichols) Donohoo, Tucumcari, N. M. Housewife.
- Schuyler Nichols, M. D., Herington, Kan. Physician and surgeon.
- Lucy Junie Parks, Manhattan, Kan. Teacher.
- Ernest Byron Patten, Carthage, S. Dak. Grain-buyer.
- C. Jeanette (Perry) Thomas, 214 N. Third street, Harrisburg, Pa. Housewife.
- Emilie Matilda Pfuetze, Manhattan, Kan. Cashier in store.
- John Martin Pierce, Geyserville, Cal. Fruit-grower.
- Raymond Haines Pond, M. S., Ph. D., 87 Lake street, Chicago, Ill. Professor of botany and pharmacognosy, Northwestern University.
- William Poole, R. F. D. No. 2, Manhattan, Kan. Farmer.
- Willis Thomas Pope, Honolulu, H. I. Professor of nature study and agriculture in the Territorial Normal and Training School of Hawaii.
- Nora May (Reed) Pierce, Geyserville, Cal. Housewife.
- Gertrude Elizabeth Rhodes, Manhattan, Kan. Clerk.
- Henry William Rogler, Bazaar, Kan. Farmer and stockman.
- Ferdinand John Rumold, Dillon, Kan. Farmer and stockman.
- Martin Wilbur Sanderson, Marysville, Kan. City engineer and county surveyor.
- Olive Maria (Shelden) Parker, 128 Prospect avenue, El Paso, Tex. Housewife.
- Edwin Lee Smith, R. F. D. No. 3, Manhattan, Kan. Rural letter carrier and farmer.
- Oliver Russell Smith, C. E., Socorro, N. M. Professor of civil engineering, New Mexico School of Mines.
- Bertha (Spohr) Smith, Garnett, Kan. Housewife.
- Andrew B. Symus, R. F. D. No. 4, Atchison, Kan. Farmer.
- Cora Thackrey, Valentine, Neb. Recording clerk in county clerk's office.
- Harriet Emerson (Thackrey) Reece, Valentine, Neb. Housewife.
- Henry Marsden Thomas, 214 North Third street, Harrisburg, Pa. Collection manager for J. I. Case Threshing-machine Company.
- Elsie Lucile Waters, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
- Fred Dorsey Waters, Neame, La. Lumber grader.
- Abner Davis Whipple, 531 West Sixty-first Place, Chicago, Ill. Traveling salesman for Chicago Linoleum Company.
- Adelaide Frances (Wilder) Sawdon, 933 East State street, Ithaca, N. Y. Housewife.
- Josephine Hannah (Wilder) McCullough, Manhattan, Kan. Housewife.
- Frank Yeoman, LL. B., 57 Water-works building, Kansas City, Mo. Lawyer.
- Frederick Zimmerman, Moray, Kan. Farmer and dog fancier.

1899.*

- Bonnie Frances Adams, Marvin, Kan. At home.
 Morrison Carpenter Adams, Marvin, Kan. Stock farmer.
 Melvia Fairetta Avery, Wakefield, Kan. Student at the College of Physicians and Surgeons, Kansas City, Kan.
 Albert Edwin Blair, 517 Massachusetts building, Kansas City, Mo. Architectural draftsman and graduate student, Kansas State Agricultural College.
 James Courtney Bolton, R. F. D. No. 1, Wamego, Kan. Farmer.
 Joseph Abbott Butterfield, 437 Hardesty avenue, Kansas City, Mo. Railway mail service.
 Willitt Ramson Correll, R. F. D. No. 2, Carbondale, Kan. Farmer.
 Ernest Lerner Cottrell, Wabaunsee, Kan. Farmer.
 Alfred Burton Dille, jr., Edgerton, Kan. Farmer and raiser of fancy stock.
 Francis Joseph Habiger, Bushton, Kan. Farmer and stock-raiser.
 John George Haney, 920 Clark street, Ames, Iowa. Assistant professor of farm crops in division of agronomy, Iowa State College.
 John Andrew Harvey, R. F. D. No. 1, Ogden, Kan. Farmer.
 Grace Edna (Hill) Champlin, Phillipsburg, Kan. Housewife.
 Hiram Adsit Holzer, 113 West Park avenue, Pittsburg, Kan. Superintendent United Iron works Company.
 Charles Clifford Jackson, R. F. D. No. 1, Westmoreland, Kan. Farmer.
 Fred Emanuel Johnson, D. V. S., Alliance, Neb. United States inspector, federal quarantine service, bureau of animal industry.
 Harry Wallace Johnston, Chinesburg, Tex. Telegraph operator, S. F. Rly. Co.
 Lot Parker Keeler, 237 Second street, Portland, Ore. Carpenter.
 John Martin Kessler, Twenty-fifth and Kansas avenue, Topeka, Kan. Florist.
 Albert Thomas Kinsley, M. S., D. V. S., 1330 East Fifteenth street, Kansas City, Mo. Microscopist, Kansas City Veterinary College; veterinary practitioner.
 Frank Elmer LaShelle, Superior, Neb. Printer.
 Christian Dagobert Lechner, Russell, Kan. Contractor.
 Ross Long, Manhattan, Kan. Lawyer.
 Louisa Mary (Maelzer) Haise, Russell, Kan. Housewife.
 Kate Anna Manly, Manhattan, Kan. Teacher in city schools.
 Claud Masters, Ardmore, I. T. United States Indian service.
 Robert Bertice Mitchell. Died in 1904.
 Jennie June (Needham) Carter, R. F. D. No. 1, Rantoul, Kan. Housewife.
 Roscoe Townley Nichols, M. D., Liberal, Kan. Physician and surgeon.
 Fanny Gertrude Noyes, 217 E. College street, Oberlin, Ohio. Student.
 Harry Delphos Orr, M. D., St. Luke's hospital, Chicago, Ill. Physician on resident staff.
 George Washington Owens, Normal Institute, Tuskegee, Ala. Professor of dairy husbandry.
 Carrie Vashti (Painter) Desmarais, Lakeland, Kan. Housewife.
 Ella Emerson Peck, Big Valley, Tex. Teacher.
 Anna C. Pfuetze, Manhattan, Kan. At home.
 Andrew Pottorf, Riley, Kan. Farmer.
 Mary Bly (Pritner) Lockwood, Allegheny Place, Meadville, Pa. Housewife.
 Otto Independence Purdy, Albert Lea, Minn. Associate editor *Freeborn County Times*.
 Delmer William Randall, Washington, D. C. Civil engineer, Department of Agriculture.

*B. S. has been granted all graduates since 1877.

William Harry Roberts, Vernon, Kan. Farmer.
 Frank Sessions Shelton, Juneau, Alaska. Prospector.
 Louisa Mary Spohr, Topeka, Kan. Directress of Christ hospital.
 Annie Louisa (Streeter) Haney, 920 Clark street, Ames, Iowa. Housewife.
 Nellie (Towers) Brooks, 1125 Paseo, Kansas City, Mo. Housewife.
 Otho Sprague True, R. F. D. No. 2, Paxico, Kan. Farmer.
 James Otis Tulloss, Sedan, Kan. Merchant, and Regent Kansas State Agricultural College.
 William Guy Tulloss, Rantoul, Kan. Cashier State Bank.
 George Franklin Wagner, Enterprise, Kan. Farmer and stock-raiser.
 Mary Lana (Waugh) Smith, 7503 Sunnyside avenue, Seattle, Wash. Housewife.
 Charles Bernard White, Hudson, Colo. Ranchman.
 Nannie Elizabeth Williams, 3945 Cook avenue, St. Louis, Mo. Stenographer.
 Alexander George Wilson. Died in 1902.
 Frederick Otto Woestemeyer, B. D., Bethel, Kan. Minister.

1900.*

Elizabeth Jane Agnew, Yates Center, Kan. Teacher of domestic science.
 Elizabeth Edna (Asbury) Derr, 608 Main street, Mt. Pleasant, Mich. Housewife.
 Effie Elizabeth (Bailey) Foltz, R. F. D. No. 3, Manhattan, Kan. Housewife.
 Alvah I. Bain, Marysville, Kan. Implement and coal dealer.
 Harry M. Bainer, M. S. A., Ames, Iowa. Instructor in field-engineering, in farm mechanics department, Iowa State College.
 Charlotte Almira (Berkey) Smith, El Dorado, Kan. Housewife and teacher.
 John Harold Blachly, Manhattan, Kan. Painter.
 Minerva (Blachly) Dean, Manhattan, Kan. Housewife and graduate student, Kansas State Agricultural College.
 Zina Leigh Bliss, 413 Thompson street, Ann Arbor, Mich. Student in Forest school, University of Michigan.
 Fred Winchester Bobbitt, Perry, Okla. County surveyor and civil engineer.
 Lillie Grace Bolton, R. F. D. No. 1, Wamego, Kan. Teacher.
 Prudence Dell Broquet, Norton, Kan. At home.
 Nellie (Burtner) Sargent. Died in 1901.
 Clarence Asa Chandler, 608 East Thirtieth street, Kansas City, Mo. Landscape-gardener for Kansas City parks.
 Frederick Waldemar Christensen, State College, Pa. Assistant expert, animal nutrition, bureau of animal industry, United States Department of Agriculture.
 Ernest Mansel Cook, Oakley, Kan. Farmer and stock-raiser.
 Charles McClain Correll, Manhattan, Kan. Teacher in city schools.
 Jennie Maude Currie, 904 Monroe street, Topeka, Kan. Stenographer, A. T. & S. F. general offices.
 Harry Leroy Dern, Dodge City, Kan. Teacher and stock-raiser.
 Homer Derr, 608 Main street, Mt. Pleasant, Mich. Instructor of physics and mathematics, Central State Normal School.
 Mary Alberta (Dille) Hulett, Edgerton, Kan. Housewife.
 Robert Edward Eastman, Manhattan, Kan. Assistant horticulturist and graduate student, Kansas State Agricultural College.
 Jennie Edelblute, Manhattan, Kan. Clerk.
 Eugene Emrick, Webb City, Mo. Deputy for Knights and Ladies of Security, Topeka, Kan.

*B. S. has been granted all graduates since 1877.

- Josephine Finley, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
- Harry Verne Forest, Lyons, Kan. Superintendent of electric light company.
- George Ogden Greene, M. S., Amherst, Mass. Assistant in horticulture, Massachusetts State Agricultural College.
- Herman C. Haffner, Grand Junction, Colo. Assistant superintendent Teller Institute.
- Gustaf William Hanson, lock box P, Marquette, Kan. Proprietor and superintendent of the Hanson Novelty Manufacturing Company.
- James William Harner, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
- Daisy Gladys Hoffman, Enterprise, Kan. Kindergarten teacher.
- Walter Fisk Lawry, 114 Thirty-third street, Chicago, Ill. Structural engineer.
- Amanda Culp (McCarty) Coats, Mountain Grove, Mo. Housewife.
- N. Ollie McCurry, Winslow, Ariz. Telegraph operator.
- George G. McDowell, Elkton, Colo. Miner.
- Roland McKee, Blue Rapids, Kan. Farmer and graduate student, Kansas State Agricultural College.
- Nettie (McLaren) Scott, box 75, Altoona, Kan. Housewife.
- Charles Dudley Montgomery. Died in 1902.
- Fred Byers Morlan, R. F. D. No. 1, Courtland, Kan. Farmer.
- Andrew Edward Oman, care of Yale Forest School, New Haven, Conn. Student, Yale Forest School.
- Kate Paddock, Manhattan, Kan. At home.
- Joseph Lloyd Pancake, Tully, Kan. Stock-raiser.
- Albert William Parrack. Died in 1901.
- Edith (Perkins) Myers, Berkeley, Va. Housewife.
- Elenore Perkins, box 238, South Pasadena, Cal. At home.
- Paul du Chaillu Piersol, 214 W. Oklahoma avenue, Guthrie, Okla. Manufacturing confectioner.
- Luther Eugene Potter, Chilocco, I. T. Dairyman at Indian school.
- Clara Spilman, Camden Point, Mo. Instructor in domestic science at the Christian Female Orphans' School.
- Mabel Stewart, Neosho, Mo. Teacher.
- Stella Stewart, Cresheim Hall, Mt. Airy, Philadelphia, Pa. Primary teacher, Pennsylvania Institution for the Deaf.
- Fayette Charles Sweet, Beaver county, Oklahoma. Stockman.
- Cora Edith Swingle, South Canaan, Pa. Student at State University, Ann Arbor, Mich.
- Deane Bret Swingle, M. S., 1615 Florida avenue, Washington, D. C. Assistant in pathology, United States Department of Agriculture.
- Barton Thompson, Birmingham, Ala. Foreman Hillside dairy farm.
- Laura Helen (Trumbull) Correll, Manhattan, Kan. Housewife.
- Jessie May Wagner, Enterprise, Kan. At home.
- Luther Watts Waldraven, R. F. D. No. 1, Winkler, Kan. Farmer and stock-raiser.
- Kate Elizabeth Zimmerman, Fruita, Colo. Assistant in high school.

1901.*

- Delmar Akin, Manhattan, Kan. Farmer.
- Cyrus Norton Allison, D. D. S., Falls City Neb. Dentist.
- Loua Adelle Blachly, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
- Harry S. Bourne, Delphos, Kan. Carpenter and machinist.
- Charles J. Burson, Herrick, S. Dak. Farmer and stock-raiser.
- Howard Frank Butterfield, 604 W. Second street, Pittsburg, Kan. Instructor in manual training in high school.
- Edwin Charles Cook. Died in 1903.
- Ina Foote Cowles, Manhattan, Kan. Instructor in domestic art, Kansas State Agricultural College.
- Trena Dahl, R. F. D. No. 1, Montrose, Kan. Teacher, and graduate student, Kansas State Agricultural College.
- Fannie Rachel Ellen Dale, Manhattan, Kan. Stenographer in mechanical department, Kansas State Agricultural College.
- Herman August Dieball, Albuquerque, N. M. Proprietor of Commercial hotel.
- Edgar Willis Doane, box 15, Palo Alto, Cal. Student Leland Stanford Jr. University.
- Otto H. Elling, Hays, Kan. Superintendent, Fort Hays Branch Experiment Station.
- Valentine Meacham Emmert, R. F. D. No. 1, Blue Rapids, Kan. Farmer and stockman.
- Rainey Faris, Upper Alton, Ill. Master mechanic for Western Cartridge Company.
- Harry Haines Fay, R. F. D. No. 2, Wilsey, Kan. Farmer.
- Fred Fockele, Waverly, Kan. Cashier in bank.
- Louise Gerteis, Derby, Kan. Student at Kansas State Normal School.
- Maud Hart, Coin, Iowa. At home.
- Fred Willis Haselwood, Palo Alto, Cal. Civil engineer with Western Pacific Railway Co.
- Minnie M. Howell, box 1, Topeka, Kan. Instructor of domestic science and mathematics, Topeka Industrial Institute.
- Edith Huntress, Manhattan, Kan. Executive clerk, Kansas State Agricultural College.
- Louis Berten Jolley, 71 Thirtieth street, Chicago, Ill. Physician and surgeon.
- Helen (Knotman) Pratt, Manhattan, Kan. Housewife.
- Daniel Ladd, 652 E. Fifty-seventh street, Chicago, Ill. Student Chicago University.
- Erma Elizabeth Locke, Mountain Grove, Mo. Teacher in high school.
- Harvey McCaslin, Palo Alto, Cal. Student Leland Stanford Jr. University.
- Madge Ruth McKeen, Keats, Kan. Teacher.
- John A. McKenzie, R. F. D. No. 1, Solomon, Kan. Farmer.
- George Martinson, Reno, Nev. Lawyer.
- Walter E. Mathewson, Manhattan, Kan. Assistant in chemistry and graduate student, Kansas State Agricultural College.
- Emma Maude (Miller) Cook, Oakley, Kan. Teacher.
- Margaret Jane Minis, Manhattan, Kan. Librarian, Kansas State Agricultural College.
- Clarence William Morgan, Phillipsburg, Kan. Farmer.

* B. S. has been granted all graduates since 1877.

- Eugene Lawrence Morgan, Phillipsburg, Kan. Student at Kansas Medical College, Topeka.
- Ruth Atwill Mudge, 909 Fourth avenue, Louisville, Ky. Assistant in physiology and botany, girls' high school.
- Jessie May Mustard, Manchester, Kan. Teacher at Solomon, Kan.
- Martha Nitcher, Ames, Iowa. Teacher.
- John H. Oosterhaus, 1330 E. Fifteenth street, Kansas City, Mo. Student at Kansas City Veterinary College.
- Carrie Belle Oneel, Potter, Kan. Teacher.
- Helena Maude Pincomb, 302 Church street, Stevens Point, Wis. Directress of domestic science at State Normal School.
- Bryant Poole, R. F. D. No. 2, Manhattan, Kan. Farmer.
- Leroy Rigg, Kirwin, Kan. Farmer and stock-raiser.
- William Stephen Sargent, Cody, Wyo. Geological survey.
- Maude (Sauble) Rogler, Bazaar, Kan. Housewife.
- Charles A. Scott, Washington, D. C. Agent bureau of forestry, United States Department of Agriculture, and student Yale Forest School.
- Anna Louisa (Smith) Kinsley, 1330 E. Fifteenth street, Kansas City, Mo. Housewife.
- Adelaide Strite, Manhattan, Kan. Teacher in city schools.
- Anna Odette Summers, Waterville, Kan. At home.
- Lucy Sweet, Santa Cruz, Cal. Clerk.
- Perrin K. Symms, R. F. D. No. 4, Atchison, Kan. Farmer.
- Estella Mae Tharp, R. F. D. No. 8, Winfield, Kan. At home.
- Helen Castle True, 1817 Lane street, Topeka, Kan. Teacher.
- Harry Castle Turner, Rock Creek, Kan. Teacher.
- Florence Helen (Vail) Butterfield, 604 W. Second street, Pittsburg, Kan. Housewife.
- Mary Caroline (Wagner) Gresham, Black Rock, N. M. Housewife.
- Eleanor Mary White, R. F. D. No. 4, Newton, Kan. Teacher in Wichita.
- Katharena Winter, Manhattan, Kan. Clerk.
- Lucie Joan (Wyatt) Wilson, Westmoreland, Kan. Housewife.
- Henry Theodor York. Died in 1902.

1902.*

- Mamie Alexander, Manhattan, Kan. Stenographer in office of farm department, Kansas State Agricultural College.
- Edgar McCall Amos, Manhattan, Kan. Newspaper reporter.
- Henry Albert Avery, Wakefield, Kan. Hardware and furniture dealer.
- Etta Marie Barnard, Manhattan, Kan. Teacher.
- Mary Olive Barr, Manhattan, Kan. At home.
- George Ford Bean, Manhattan, Kan. Employed at Pfuetze's lumber-yard.
- Charles Dallas Blachly, Leonardville, Kan. Student at Kansas City Medical College.
- Bessie Sarah Bourne, Delphos, Kan. Teacher.
- Martha Amelia Briggs, R. F. D. No. 2, Manhattan, Kan. At home.
- Emma M. Cain, Clay Center, Kan. Teacher at Ogden.
- Floyd Adelbert Champlin, Phillipsburg, Kan. Stockman.
- Elijah Ellis Chase, R. F. D. No. 1, Merriam, Kan. Farmer.
- Charles Howard Clark, Kinsley, Kan. Farmer.

*B. S. has been granted all graduates since 1877.

- Maude Mildred Coe, Manhattan, Kan. Assistant in domestic art and graduate student, Kansas State Agricultural College.
- Murray Stanley Cole, Daggett, Cal. With Clarke Railway Company.
- Robert Curtise Cole, Trenton, Mo. Superintendent Grafflin stock farm.
- Lottie Irene Crawford, 229 Smith street, Fort Collins, Colo. Assistant in domestic economy, Colorado Agricultural College.
- Sarah Emily Davies, Bala, Kan. Student State Normal, Emporia.
- Della Drollinger, Garrison, Kan. Teacher.
- Charles Eastman, D. V. S., 1556 Mill street, San Luis Obispo, Cal. Veterinarian.
- Leslie Arthur Fitz, Modesto, Cal. Scientific assistant, bureau of plant industry, United States Department of Agriculture.
- Glick Fockele, Le Roy, Kan. Newspaper reporter.
- Clark A. Gingery, R. F. D. No. 4, Caldwell, Kan. Farmer and stock-raiser.
- William Lee Harvey, Wamego, Kan. Stenographer and student of law.
- Benjamin F. Haynes, jr., R. F. D. No. 1, Middleton, Idaho. Ranchman.
- William Rutherford Hildreth, Altamont, Kan. Farmer.
- Christine Delphine Hofer, 4606 Indiana avenue, Chicago, Ill. Student Chicago Music School.
- Henrietta Mattie Hofer, 4606 Indiana avenue, Chicago, Ill. Graduate student, Kansas State Agricultural College; student Chicago Music School.
- Edouard Wilfred House, Manhattan, Kan. Mechanic.
- Letta Birdilla (Keen), Edmonson, Pittsburg, Kan. Housewife.
- Edgar Willis Kimball, Scandia, Kan. Journalist.
- Arthur Henry Leidigh, Channing, Tex. Special agent cereal investigations, bureau of plant industry, United States Department of Agriculture.
- George M. Logan, 6036 Woodlawn avenue, Chicago, Ill. Student Rush Medical College.
- Otto Meade McAninch, R. F. D. No. 4, Manhattan, Kan. Farmer.
- Amelia Augusta Maelzer, May, Idaho. Teacher.
- Myrtle Mather, 311 North street, Normal, Ill. Teacher of domestic science, Illinois Soldiers' Orphans' Home; Chautauqua and farmers' institute lecturer.
- Roger Bonner Mullen, Lake Bay, Wash. Fruit-grower and market-gardener.
- Grover Poole, R. F. D. No. 2, Manhattan, Kan. Farmer.
- Abbie Elida Putnam, Logan, Kan. Teacher in high school.
- Henry Paul Richards, 417 Madison street, Topeka, Kan. Mechanic with A. T. & S. F. Rly. Co.
- Eva Talitha Rigg, corner Fifteenth and Denver avenue, Kansas City, Mo. Teacher domestic science and student at Fisk Deaconess Training School.
- John Francis Ross, Genoa, Neb. Teacher of agriculture in Indian school.
- Pontus Henry Ross, Kenai, Alaska. Superintendent of United States Experiment Station.
- Fred Lewis Schneider, D. V. S., 201 South First street, Albuquerque, N. M. Veterinarian.
- Edmund Ray Secrest, Washington, D. C. Assistant forest expert, bureau of forestry, United States Department of Agriculture.
- Glen Reid Shepherd, 623 Oakland avenue, Kansas City, Kan. Treasurer at Orpheum theater.
- Charles Franklin Smith, El Dorado, Kan. Assistant principal of high school.
- Walter Hayward Spencer, Yates Center, Kan. Farmer.
- John Thomas Stafford, Maher, Colo. Ranchman.
- Myrtie Lucy Toothaker, R. F. D. No. 3, Blaine, Kan. At home.
- Fred Walters, Manhattan, Kan. Employed at Higinbotham's mill.
- Lilly Maud Zimmerman, Beattie, Kan. Teacher in high school.
-

1903.*

- Richard Franklin Bourne, 1330 East Fifteenth street, Kansas City, Mo. Student and assistant, Kansas City Veterinary College.
- Howard McCune Chandler, Honolulu, H. I. With Honolulu Iron Works Co.
- DeVerne E. Corbin, Oxford, Kan. Draftsman.
- James A. Correll, Lyons, Kan. Electrician.
- Amos Luther Cottrell, Omaha, Neb. Manager of sales and advertising, with Alfalfa Meal Company.
- Claude Carroll Cunningham, Manhattan, Kan. Graduate student, Kansas State Agricultural College, and farmer.
- Orrin Pomeroy Drake, Beattie, Kan. Farmer.
- Louis Sidney Edwards, Oswego, Kan. Stockman on Deming ranch.
- Robert Alexander Esdon, R. F. D. No. 1, Garrison, Kan. Teacher.
- Corinne Failyer, 225 Fifth street, S. E., Washington, D. C. At home.
- Maude Irene Failyer, 225 Fifth street, S. E., Washington, D. C. Special student at George Washington University.
- Estella May Fearon, 1128 Boylston street, Boston, Mass. Student Boston Normal School.
- George T. Fielding, No. 7 North College street, Schenectady, N. Y. Tester, General Electric Company.
- James William Fields, McPherson, Kan. Student and assistant, Western Dental College, Kansas City, Mo.
- Arthur B. Gahan, College Park, Md. Assistant state entomologist.
- Fred Norton Gillis, Wishek, N. Dak. Assistant cashier First State Bank.
- Clara S. Goodrich, Mankato, Kan. Teacher in Jewell City schools.
- Edith Anna Goodwin, Detroit, Kan. Teacher of science at Dickinson county high school, Chapman.
- Ellsworth Paul Goodyear, 221 South Main street, Wichita, Kan. Baker.
- Alanson L. Hallsted, Havana, Kan. Farmer.
- Esther E. (Hanson) Ross, Kenai, Alaska. Housewife.
- Edward Howard Hodgson, Little River, Kan. Farmer.
- Pearl Holderman, Tahlequah, I. T. Clerk in land-office.
- Hartley Bowen Holroyd, 340 E. Washington street, Ann Arbor, Mich. Student University of Michigan.
- Sarah C. Hougham, Manhattan, Kan. Clerk in botanical department, Kansas State Agricultural College.
- Axel H. Johnson, Mill Creek No. 3, Craftonville, Cal. Switchboard operator, Edison Electric Company.
- Jesse McCullah Jones, R. F. D. No. 4, Montgomery, Ala. Farmer.
- Hernon Curtis Kyle, Manhattan, Kan. Assistant in agriculture, Kansas State Agricultural College.
- Raymond George Lawry, 114 Thirty-third street, Chicago, Ill. Engineer in charge of coal-mining plants, Roberts & Schaefer Company.
- Rose Margaret McCoy, Manhattan, Kan. Teacher.
- Edwin William McCrone, Callao, Mo. Dairyman.
- Bessie A. Mudge, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
- Harold Theodore Nielsen, Washington, D. C. Assistant in alfalfa and clover investigations, bureau of plant industry, United States Department of Agriculture.

* B. S. has been granted all graduates since 1877.

Ivan L. Nixon, Geological hall, Albany, N. Y. Assistant state entomologist.
 Russell Arthur Oakley, 1431 Sheridan street, N. W., Washington, D. C. Scientific assistant United States Department of Agriculture.
 Anna Louella O'Daniel, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
 Clara Pancake, Manhattan, Kan. Assistant in domestic science, Kansas State Agricultural College.
 Celoa Alice (Perry) Hill, Fayette, Mo. Housewife.
 Alexis Joseph Reed, 12 Stanley terrace, Chicago, Ill. Telephone engineer, with Western Electric Company.
 Earl Nathaniel Rodell, Manhattan, Kan. Assistant in printing, Kansas State Agricultural College.
 Alice May Ross, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
 Alfred Hayes Sanderson, Marysville, Kan. Farmer.
 Henry August Sidorfsky, Craftonville, Cal. Station operator, Santa Ana river, No. 1, Edison Electric Company.
 Emma Estella (Smith) Burt, Wabaursee, Kan. Housewife.
 Harold Addison Spilman, Manhattan, Kan. Clerk and graduate student, Kansas State Agricultural College.
 Lois Stump, Manhattan, Kan. At home.
 Harry Raymond Thatcher, lock box 623, Houston, Tex. Manager stock farm.
 Helen B. Thompson, Manhattan, Kan. Assistant in preparatory department and graduate student, Kansas State Agricultural College.
 John Augustus Thompson, 711 Cornell avenue, Kansas City, Kan. Mail carrier.
 Sarah Pauline Thompson, Olathe, Kan. Teacher of domestic science, School for Deaf.
 Dovie May Ulrich, Manhattan, Kan. Teacher.
 Harry Nelson Vinall, Crete, Neb. Nurseryman.
 Alberta Suena Voiles, Manhattan, Kan. Teacher.
 Leon Vincent White, Manhattan, Kan. Advance agent for dramatic company.

1904.*

Amy Alena Allen, Manhattan, Kan. Printer.
 Marian Allen, Manhattan, Kan. Clerk.
 Grace Allingham, Manhattan, Kan. Domestic science teacher.
 James George Arbuthnot, Hubbell, Neb. Drug clerk.
 Clinton Jesse Axtell, 222 W. Wesley street, Jackson, Mich. Electrician for Commonwealth Power Company.
 Wallace W. Baird, Milford, Kan.
 Flora Evacelia Ballou, Delphos, Kan. Telephone operator.
 William Burgess Banning, Florence, Ariz. Miner.
 Clara Florence Barnhisel, Indian school, Toledo, Iowa. Seamstress, Sac and Fox Indian school.
 Frank Lorin Bates, Manhattan, Kan. Solicitor for Midland Lyceum Bureau.
 Louis Blaine Bender, care of Western Electric Company, Chicago, Ill. Installation department.
 John Jeremiah Biddison, care of Topeka *Herald*, Topeka, Kan. Reporter.
 P. McDonald Biddison, Zeigler, Ill. Electrician, Zeigler Coal Company.
 Wallace Newton Birch, Parkview dairy, Topeka, Kan. Dairyman.

*B. S. has been granted all graduates since 1877.

- Otis Neel Blair, Agricultural College, Mich. Instructor in mechanical drawing.
 William Armfield Boys, Lee's Summit, Mo. Farmer.
 Viva (Brenner) Morrison, Golden, Colo. Housewife.
 Thomas Warner Buell, Roanoke, Tex. Farmer.
 Clark Stewart Cole, Mankato, Kan. Teacher.
 Victor L. Cory, Mountain View, Mo. Assistant in cereal investigations, United States Department of Agriculture.
 Jennie Pearl Cottrell, Wabaunsee, Kan. At home.
 Ella Criss, Grigsby, Kan. Teacher.
 Wilma Greene (Cross) Rhodes, Manhattan, Kan. Housewife.
 Mary E. Davis, Manhattan, Kan. Clerk in post-office, Kansas State Agricultural College.
 William DeOzro Davis, Independence, Kan. Electrician, Western States Portland Cement Company.
 Charles Sumner Dearborn, Manhattan, Kan. Assistant in mechanical engineering, Kansas State Agricultural College.
 Thomas E. Dial, 728 Osage street, Leavenworth, Kan. Electrical engineer.
 Lawrence A. Doane, Parkview dairy, Topeka, Kan. Dairyman.
 May Doane, Manhattan, Kan. At home.
 Roy Nathan Dorman, North Topeka, Kan. Dairyman, Boys' Industrial School.
 Carl O. Duehn, Clements, Kan. Farmer.
 Glen Edgar Edgerton, West Point, N. Y. Cadet, United States Military Academy.
 Carl G. Elling, experiment station, Santiago de las Vegas, Cuba. Assistant, Department of Animal Industry of Cuba.
 Ralph B. Felton, R. F. D. No. 6, McPherson, Kan. Farmer.
 Ray Bonifield Felton, R. F. D. No. 6, McPherson, Kan. Farmer.
 Elizabeth Finlayson, Summerfield, Kan. Teacher.
 Jessie Lois Fitz, Vinland, Kan. Teacher at Eudora.
 Beulah Fleming, Manhattan, Kan. Teacher.
 Hattie L. Forsyth, Dwight, Kan. At home.
 Louis Cloyd Foster, La Junta, Colo. Electrician, with A. T. & S. F. railway.
 Edwin Chase Gardner, 4364 Emerald avenue, Chicago, Ill. Cattle-buying department, with Swift & Co.
 Walter Otis Gray, 1316 Broadway, Kansas City, Mo. Student and assistant in chemistry, Kansas City Medical College.
 Augusta Griffing, Manhattan, Kan. Teacher at Rocky Ford.
 John Bernice Griffing, Watonga, Okla. Creamery man.
 Charles Alfred Groves, Edwardsville, Kan.
 Mary Elizabeth Longfellow Hall, R. F. D. No. 3, Burden, Kan. At home.
 Harry Vaughn Harlan, Walnut, Kan. Farmer.
 Mamie Magdalene Hassebroek, Manhattan, Kan. Teacher.
 Arthur Hurschel Helder, 1100 West Fortieth street, Kansas City, Mo. Student.
 Mamie Eva Helder, Manhattan, Kan. At home.
 William A. Hendershot, 5004 East Ninth street, Kansas City, Mo. Street-car conductor.
 John Samuel Houser, Experiment Station, Wooster, O. Assistant entomologist.
 Evan James, Hudson, Kan. Farmer.
 John Arthur Johnson, Wardell, Mo. Superintendent W. C. Edwards's ranches.
 Helen Kernohan, Beverly, Kan. Clerk.
 Ralph Teeter Kersey, Louisville, Kan.
 Charles Franklin Kinman, Auburn, Ala. Assistant horticulturist, State Agricultural College, and graduate student, Kansas State Agricultural College.

- Alice M. Loomis, Manhattan, Kan. Assistant in preparatory department and graduate student, Kansas State Agricultural College.
- George W. Loomis, R. F. D. No. 4, Girard, Kan. Farmer and stock-breeder.
- Sara Grace McCrone, Haddam, Kan. At home.
- Vera Alta McDonald, Manhattan, Kan. At home.
- Kirk P. Mason, Cawker City, Kan. Student Kansas Medical College, Topeka.
- Howard David Matthews, 133 Front street, Schenectady, N. Y. Electrician, with General Electric Company.
- Vernon Matthews, 86 Mall street, West Lynn Station, Lynn, Mass. Engine tester for Fairbanks, Morse & Co.
- Chester Arthur Maus, station B, Topeka, Kan. Electrician for Santa Fe at Temple, Tex.
- Julia Anna Monroe, Whiting, Kan. Teacher at Richland.
- Helen Monsch, Kelly hall, University of Chicago, Chicago, Ill. Student.
- Samuel Erwin Morlan, 121 E. Maple street, Denver, Colo. Electrician, Colorado Zinc Mills.
- Albert Marvin Nash, 417 E. Eighteenth street, Cheyenne, Wyo. Electrician.
- Virginia Viola Norton, Manhattan, Kan. Teacher.
- Mary Lorena O'Daniel, Manhattan, Kan. At home.
- Tom Lawrence Pittman, Lewistown, Mont. Electrician.
- Charles A. Pyle, Morrill, Kan. Farmer and stockman.
- Elvin Rickman, corner Washington and Bush streets, Los Angeles, Cal. With cement company.
- Jennie Florence Ridenour, Rosebud, S. Dak. Seamstress in Indian school.
- Florence Rebecca Ritchie, Beloit, Kan. Teacher of domestic science, State Industrial School for Girls.
- Jesse L. Rogers, Paola, Kan. Clerk.
- Flora Rose, Manhattan, Kan. Assistant in domestic science, Kansas State Agricultural College.
- Lawrence V. Sanford, R. F. D. No. 2, Oneida, Kan. Farmer and stock-raiser.
- James G. Savage, 716 Fifth street, San Bernardino, Cal. Special apprentice with A. T. & S. F. railway.
- Nicholas Schmitz, Forest Home, Ithaca, N. Y. Graduate student, Cornell University.
- Robert Douglas Scott, Marysville, Kan. Manager theatrical company.
- Roy A. Seaton, assistant in mathematics, Kansas State Agricultural College.
- John T. Skinner, Zeigler, Ill. Chief engineer power plant, Zeigler Coal Company.
- Margie Smith, Manhattan, Kan. At home.
- Sallie Maud Smith, Manhattan, Kan. Graduate student, Kansas State Agricultural College.
- Arthur S. Stauffer, 325 Park avenue, Beloit, Wis. Draftsman for Fairbanks, Morse & Co.
- K. Elizabeth Sweet, Manhattan, Kan. Assistant in department of veterinary science and bacteriology, and graduate student, Kansas State Agricultural College.
- Wendell Phillips Terrell, 84 Sawyer street, Boston, Mass. Student Massachusetts Institute of Technology.
- Henry Thomas, 5027 Linden avenue, station H, Cincinnati, Ohio. Student apprentice with Bullock Electric Manufacturing Company.
- Carl Thompson, Garrison, Kan. Farmer.
- Norman Lee Towne, North Topeka, Kan. Gardener, Boys' Industrial School.

William Turnbull, 716 Fifth street, San Bernardino, Cal. Special apprentice,
A. T. & S. F. railway shops.
Gertrude M. Vance, Manhattan, Kan. At home.
Orin Russell Wakefield, 354 South Hoyne avenue, Chicago, Ill. Medical student.
Frank Cooper Webb, R. F. D. No. 2, Peck, Kan. Farmer.
William Allen Webb, R. F. D. No. 2, Peck, Kan. Farmer.
James Halley Whipple, 520 East Fifth street, Topeka, Kan. Special apprentice,
A. T. & S. F. railway.
Orville Blaine Whipple, Amherst, Mass. Graduate student, Massachusetts Ag-
ricultural College.
Emily Jennie Wiest, Manhattan, Kan. Clerk in register of deeds' office.
Robert S. Wilson, Eatonville, Kan. Farmer.
Retta Womer, Womer, Kan. Graduate student, Kansas State Agricultural
College.

Summary.

The number of graduates up to 1905 is 1023, of whom 384 are women. Graduates previous to 1877 pursued, with two exceptions, a classical course, and received the degree of bachelor of arts. Since 1877, all have received the degree of bachelor of science, after a four-year course in the sciences, with good English training.

Of the 639 men, 35 are deceased, and the remainder are reported in the following occupations:

Farmers and stock-raisers.....	129
Farm foremen	8
Fruit-growers, nurserymen, gardeners, and florists.....	20
Creamery men.....	9
Superintendent of agricultural experiment station.....	1
Professors and assistants in experiment stations and agricultural colleges.....	28
In United States Department of Agriculture.....	26
Secretary of board of agriculture.....	1
Solar observer.....	1
Teachers and employees in Indian service	9
Mechanics	20
Manufacturers.....	6
Miners	6
Architects and builders.....	6
Draftsmen	7
Civil, electrical, mining and mechanical engineers.....	38
Telephone and telegraph operators and managers.....	5
Veterinary surgeons.....	3
Postmasters and assistants	6
In military and naval service.....	10
Regents Kansas State Agricultural College.....	2
Professors and instructors in colleges.....	22
Superintendents and teachers in public schools	19
Graduate students, Kansas State Agricultural College.....	9
Students in other institutions.....	25
Ministers and secretaries of Y. M. C. A.....	13
Journalists.....	21
Merchants	36
Commercial travelers	7
Agents	5
Clerks, bookkeepers, and stenographers	20
Officials and managers.....	20
In United States civil service.....	10
Physicians, students of medicine, chemists, druggists, dentists.....	32
Lawyers	24
District judges.....	2
County and state officials	10
Bankers and cashiers.....	12
Hotel proprietors.....	1
Lecturers.....	2
Unknown.....	10
Total.....	641
In two occupations.....	37
	604

Of the 384 women, 19 are deceased, and the remainder occupied as follows:

Housewives.....	160
Teachers of domestic science and domestic art, and dietitians	24
Nurses	6
Physicians.....	2
In United States Department of Agriculture.....	1
Secretary of Kansas State Agricultural College.....	1
Librarians.....	2
Professors and assistants in agricultural colleges and experiment stations.....	11
Professors and instructors in colleges.....	2
Teachers of art and music	3
Teachers in public schools.....	62
Kindergarten teacher	1
Graduate students, Kansas State Agricultural College.....	15
Students in other institutions.....	13
Dressmaker	1
Assistant postmaster.....	1
Bookkeepers, stenographers, and clerks	23
Lecturers.....	2
Journalists.....	2
Agent	1
Telegraph operator and telephone exchange.....	2
At home.....	36
Unknown.....	3
Total.....	374
In two occupations.....	9
	385

Advanced Degrees

Granted to persons not holding undergraduate degrees from this College.

1877.

John Fraser, LL. D. (Died.)

1883.

John D. Walters, M. S., Manhattan, Kan. Professor of architecture and drawing, Kansas State Agricultural College.

1894.

Arnold Emch, M. S., Boulder, Colo. Professor of mathematics, State University.

1897.

Oscar E. Olin, M. A., Akron, Ohio. Buchtel College.

1898.

Elam Bartholomew, M. S., Stockton, Kan. Farmer and botanist.

Herbert F. Roberts, M. S., Manhattan, Kan. Professor of botany, Kansas State Agricultural College.

George E. Rose, M. S., Rosedale, Kan. Superintendent of city schools.

1902.

George Fayette Thompson, M. S., Washington, D. C. Editor, bureau of animal industry, Department of Agriculture.

1904.

Alice Rupp, M. A., Manhattan, Kan. Assistant professor of English, Kansas State Agricultural College.

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